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| | | | |
|------|----|--------|---|
| NEWS | 1 | | Web Page for STN Seminar Schedule - N. America |
| NEWS | 2 | AUG 10 | Time limit for inactive STN sessions doubles to 40 minutes |
| NEWS | 3 | AUG 18 | COMPENDEX indexing changed for the Corporate Source (CS) field |
| NEWS | 4 | AUG 24 | ENCOMPLIT/ENCOMPLIT2 reloaded and enhanced |
| NEWS | 5 | AUG 24 | CA/CAPLUS enhanced with legal status information for U.S. patents |
| NEWS | 6 | SEP 09 | 50 Millionth Unique Chemical Substance Recorded in CAS REGISTRY |
| NEWS | 7 | SEP 11 | WPIDS, WPINDEX, and WPIX now include Japanese FTERM thesaurus |
| NEWS | 8 | OCT 21 | Derwent World Patents Index Coverage of Indian and Taiwanese Content Expanded |
| NEWS | 9 | OCT 21 | Derwent World Patents Index enhanced with human translated claims for Chinese Applications and Utility Models |
| NEWS | 10 | NOV 23 | Addition of SCAN format to selected STN databases |
| NEWS | 11 | NOV 23 | Annual Reload of IFI Databases |
| NEWS | 12 | DEC 01 | FRFULL Content and Search Enhancements |
| NEWS | 13 | DEC 01 | DGENE, USGENE, and PCTGEN: new percent identity feature for sorting BLAST answer sets |
| NEWS | 14 | DEC 02 | Derwent World Patent Index: Japanese FI-TERM thesaurus added |
| NEWS | 15 | DEC 02 | PCTGEN enhanced with patent family and legal status display data from INPADOCDB |
| NEWS | 16 | DEC 02 | USGENE: Enhanced coverage of bibliographic and sequence information |
| NEWS | 17 | DEC 21 | New Indicator Identifies Multiple Basic Patent Records Containing Equivalent Chemical Indexing in CA/CAPLUS |
| NEWS | 18 | JAN 12 | Match STN Content and Features to Your Information Needs, Quickly and Conveniently |
| NEWS | 19 | JAN 25 | Annual Reload of MEDLINE database |
| NEWS | 20 | FEB 16 | STN Express Maintenance Release, Version 8.4.2, Is Now Available for Download |
| NEWS | 21 | FEB 16 | Derwent World Patents Index (DWPI) Revises Indexing of Author Abstracts |
| NEWS | 22 | FEB 16 | New FASTA Display Formats Added to USGENE and PCTGEN |
| NEWS | 23 | FEB 16 | INPADOCDB and INPAFAMDB Enriched with New Content and Features |
| NEWS | 24 | FEB 16 | INSPEC Adding Its Own IPC codes and Author's E-mail Addresses |

NEWS EXPRESS FEBRUARY 15 10 CURRENT WINDOWS VERSION IS V8.4.2,
AND CURRENT DISCOVER FILE IS DATED 15 JANUARY 2010.

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* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 12:18:56 ON 03 MAR 2010

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STRUCTURE FILE UPDATES: 1 MAR 2010 HIGHEST RN 1207596-35-7

DICTIONARY FILE UPDATES: 1 MAR 2010 HIGHEST RN 1207596-35-7

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TSCA INFORMATION NOW CURRENT THROUGH June 26, 2009.

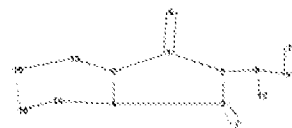
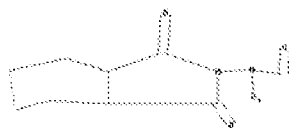
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```

chain nodes :
6  7  8  9 10 12
ring nodes :
1  2  3  4  5 13 14 15 16
chain bonds :
1-6  2-8  3-7  8-9  8-12  9-10
ring bonds :
1-2  1-5  2-3  3-4  4-5  4-14  5-13  13-15  14-16  15-16
exact/norm bonds :
1-2  1-5  1-6  2-3  2-8  3-4  3-7  4-5  4-14  5-13  8-9  8-12  9-10  13-15  14-16
15-16

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G1:H,Ak

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Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS
12:CLASS 13:Atom 14:Atom 15:Atom 16:Atom

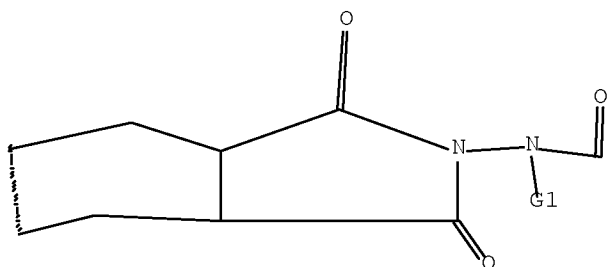
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L1 STRUCTURE UPLOADED

=> d L1

L1 HAS NO ANSWERS

L1 STR



G1 H,Ak

Structure attributes must be viewed using STN Express query preparation.

=> s L1 sSS full

THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 191.05 U.S. DOLLARS

DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y

FULL SEARCH INITIATED 12:19:22 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 4994 TO ITERATE

100.0% PROCESSED 4994 ITERATIONS

3243 ANSWERS

SEARCH TIME: 00.00.01

L2 3243 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

191.54

191.76

FILE 'CAPLUS' ENTERED AT 12:19:26 ON 03 MAR 2010

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FILE COVERS 1907 - 3 Mar 2010 VOL 152 ISS 10

FILE LAST UPDATED: 2 Mar 2010 (20100302/ED)

REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2009

USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2009

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=> s L2 SSS full

L3 479 L2

=> s L3 AND (vir?)

739624 VIR?

L4 41 L3 AND (VIR?)

=> FIL STNGUIDE

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

4.31

196.07

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LAST RELOADED: Feb 26, 2010 (20100226/UP).

=> s L3 AND (orthopox)

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created via the STRUCTURE or SCREEN commands must be searched in the
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and can be combined with text terms.

=> d his

(FILE 'HOME' ENTERED AT 12:18:56 ON 03 MAR 2010)

FILE 'REGISTRY' ENTERED AT 12:19:02 ON 03 MAR 2010

L1 STRUCTURE UPLOADED

L2 3243 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 12:19:26 ON 03 MAR 2010

L3 479 S L2 SSS FULL

L4 41 S L3 AND (VIR?)

FILE 'STNGUIDE' ENTERED AT 12:22:01 ON 03 MAR 2010

=> s L4

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answer sets from structure searches can be used in crossover searches
and can be combined with text terms.

=> file caplus

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FILE COVERS 1907 - 3 Mar 2010 VOL 152 ISS 10
FILE LAST UPDATED: 2 Mar 2010 (20100302/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Dec 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Dec 2009

Caplus now includes complete International Patent Classification (IPC)
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This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> d his

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FILE 'REGISTRY' ENTERED AT 12:19:02 ON 03 MAR 2010

L1 STRUCTURE UPLOADED
L2 3243 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 12:19:26 ON 03 MAR 2010

L3 479 S L2 SSS FULL
L4 41 S L3 AND (VIR?)

FILE 'STNGUIDE' ENTERED AT 12:22:01 ON 03 MAR 2010

FILE 'CAPLUS' ENTERED AT 12:23:27 ON 03 MAR 2010

=> s L4

739624 VIR?

L5 41 L3 AND (VIR?)

=> s L3 AND orthopox

137 ORTHOPOX

L6 0 L3 AND ORTHOPOX

=> s L3 AND (orthopox?)

799 ORTHOPOX?

L7 19 L3 AND (ORTHOPOX?)

=> s L7 NOT L5

L8 0 L7 NOT L5

=> s L5

739624 VIR?

L9 41 L3 AND (VIR?)

=> d ibib abs hitstr 1-

YOU HAVE REQUESTED DATA FROM 41 ANSWERS - CONTINUE? Y/(N):y

L9 ANSWER 1 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:1593159 CAPLUS Full-text

DOCUMENT NUMBER: 152:160132

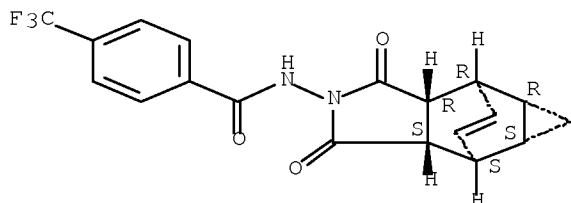
TITLE: ST-246 inhibits in vivo poxvirus dissemination,
virus shedding, and systemic disease
manifestation

AUTHOR(S): Berhanu, Aklile; King, David S.; Mosier, Stacie;
 Jordan, Robert; Jones, Kevin F.; Hruby, Dennis E.;
 Grosenbach, Douglas W.
 CORPORATE SOURCE: SIGA Technologies, Inc., Corvallis, OR, 97333, USA
 SOURCE: Antimicrobial Agents and Chemotherapy (2009), 53(12),
 4999-5009
 CODEN: AMACCQ; ISSN: 0066-4804
 PUBLISHER: American Society for Microbiology
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Orthopoxvirus infections, such as smallpox, can lead to severe systemic disease and result in considerable morbidity and mortality in immunol. naive individuals. Treatment with ST-246, a small-mol. inhibitor of virus egress, has been shown to provide protection against severe disease and death induced by several members of the poxvirus family, including vaccinia, variola, and monkeypox viruses. Here, we show that ST-246 treatment not only results in the significant inhibition of vaccinia virus dissemination from the site of inoculation to distal organs, such as the spleen and liver, but also reduces the viral load in organs targeted by the dissemination. In mice intranasally infected with vaccinia virus, virus shedding from the nasal and lung mucosa was significantly lower (.apprx.22- and 528-fold, resp.) upon ST-246 treatment. Consequently, virus dissemination from the nasal site of replication to the lung also was dramatically reduced, as evidenced by a 179-fold difference in virus levels in nasal vs. bronchoalveolar lavage. Furthermore, in ACAM2000-immunized mice, vaccination site swabs showed that ST-246 treatment results in a major (.apprx.3900-fold by day 21) reduction in virus detected at the outside surfaces of lesions. Taken together, these data suggest that ST-246 would play a dual protective role if used during a smallpox bioterrorist attack. First, ST-246 would provide therapeutic benefit by reducing the disease burden and lethality in infected individuals. Second, by reducing virus shedding from those prophylactically immunized with a smallpox vaccine or harboring variola virus infection, ST-246 could reduce the risk of virus transmission to susceptible contacts.

IT 869572-92-9, ST-246
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
 (Biological study); USES (Uses)
 (ST-246 inhibits in vivo poxvirus dissemination, virus
 shedding, and systemic disease manifestation)
 RN 869572-92-9 CAPLUS
 CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-
 dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel-
 (CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
 (1 CITINGS)
 REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS

L9 ANSWER 2 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2009:1433039 CAPLUS Full-text
 DOCUMENT NUMBER: 151:565110
 TITLE: Oncolytic viruses for preventing and
 treating neoplasms accompanying cellular therapy
 INVENTOR(S): Szalay, Aladar A.
 PATENT ASSIGNEE(S): Genelux Corporation, USA
 SOURCE: PCT Int. Appl., 159pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|----------|
| WO 2009139921 | A2 | 20091119 | WO 2009-US3061 | 20090515 |
| W: | AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | |
| RW: | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |

PRIORITY APPLN. INFO.: US 2008-54025P P 20080516

AB Cell compns. that are administered to a subject in cell therapy protocols have the potential to result in the formation of a tumor, insofar as the cell composition can contain neoplastic cells or neoplastic progenitor cells. Provided are methods for using cellular compns. in combination with oncolytic viruses. The methods include administering oncolytic viruses for the inhibition and treatment of tumors caused by administration of cellular therapies, such as stem cell therapies. The methods also include contacting cellular compns. with oncolytic viruses for the removal of neoplastic cells prior to administration of the cellular composition for therapy. Exemplary vaccinia virus for use in the methods provided include those derived from vaccinia virus strain GLV-1h68 (also named RVGL21), which contains DNA insertions in the gene loci of the vaccinia virus LIVP strain, a vaccinia virus strain originally derived by adapting the Lister strain to calf skin. Exemplary viruses are generated by replacement of one or more expression cassettes of the GLV-1h68 strain with heterologous DNA encoding gene products for therapy and/or imaging. Diagnostic methods for monitoring treatment also are provided.

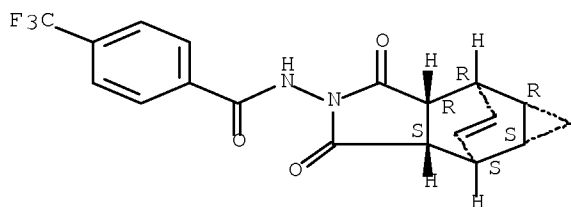
IT 869572-92-9, ST-246

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (antiviral agent; oncolytic viruses for preventing and
 treating neoplasms accompanying cellular therapy)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel-
 (CA INDEX NAME)

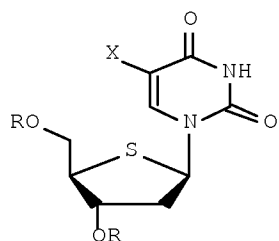
Relative stereochemistry.



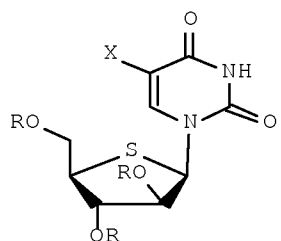
L9 ANSWER 3 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2009:1139413 CAPLUS Full-text
 DOCUMENT NUMBER: 151:373902
 TITLE: 4'-Thio-2'-deoxynucleosides as orthopoxvirus
 inhibitors and for treatment of orthopoxvirus
 infection
 INVENTOR(S): Secrit, John A.; Tiwari, Kamal N.; Maddry, Joseph A.
 PATENT ASSIGNEE(S): Southern Research Institute, USA
 SOURCE: PCT Int. Appl., 19pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2009114651 | A2 | 20090917 | WO 2009-US36869 | 20090312 |
| W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |

PRIORITY APPLN. INFO.: US 2008-47197 A 20080312
 OTHER SOURCE(S): MARPAT 151:373902
 GI



I



II

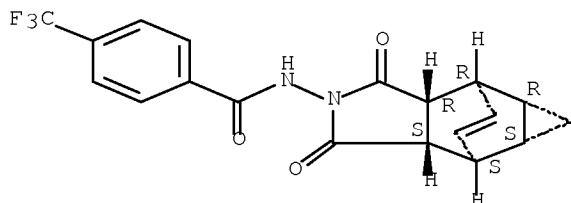
AB The invention discloses compds. I and II (R = H, aliphatic, acyl, aromatic acyl; X = H, fluoro, chloro, bromo, iodo, alkoxy, alkyl, etc.), and pharmaceutically acceptable salts, prodrugs, and mixts. thereof as inhibitors of orthopoxviruses and for treating patients suffering from an orthopoxvirus infection, such as, but not limited to, smallpox, cowpox, monkeypox and camelpox. A reaction scheme for 5-iodo-4'-thio-2'-deoxyuridine is presented, as are data for the biol. activity of this compound

IT 869572-92-9, ST-246
 RL: BSU (Biological study, unclassified); PRPH (Prophetic); BIOL (Biological study)
 (4'-Thio-2'-deoxynucleosides as orthopoxvirus inhibitors and for treatment of orthopoxvirus infection)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 4 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:875226 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 151:328025

TITLE: Antiviral evaluation of N-amino-1,2,3-triazoles against Cantagalo virus replication in cell culture

AUTHOR(S): Jordao, Alessandro K.; Afonso, Priscila P.; Ferreira, Vitor F.; de Souza, Maria C. B. V.; Almeida, Maria C. B.; Beltrame, Cristiana O.; Paiva, Daniel P.; Wardell, Solange M. S. V.; Wardell, James L.; Tiekink, Edward R. T.; Damaso, Clarissa R.; Cunha, Anna C.

CORPORATE SOURCE: Departamento de Quimica Organica, Instituto de Quimica, Universidade Federal Fluminense, Niteroi, 24020-141, Brazil

SOURCE: European Journal of Medicinal Chemistry (2009), 44(9), 3777-3783
 CODEN: EJMCA5; ISSN: 0223-5234

PUBLISHER: Elsevier Masson SAS

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 151:328025

AB This paper describes the antiviral evaluation of new N-amino-1,2,3-triazole derivs., 1-(substituted-phenylamino)-5-methyl-1H-[1,2,3]-triazole-4-carboxylic acid Et esters, 3 and 1-(4-substituted-phenylamino)-5-methyl-1H-[1,2,3]-triazole-4-carboxylic acid hydrazides, 4, on Cantagalo virus

replication. 1-(4-Fluoro-phenylamino)-5-methyl-1H-[1,2,3]-triazole-4-carboxylic acid hydrazide, 4e, exhibited a significant antiviral effect. Characterization of all compds. was confirmed by IR, 1H and 13C spectroscopies and elemental anal. In addition, mol. structure of 4e was also reported.

IT 869572-92-9F, St-246

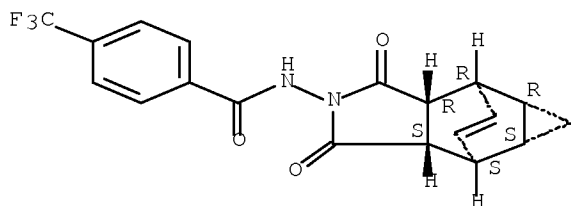
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and antiviral evaluation of amino-triazoles against Cantagalo virus)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 5 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:842184 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 152:135339

TITLE: Another ten stories in antiviral drug discovery (part C): "old" and "new" antivirals, strategies, and perspectives

AUTHOR(S): De Clerq, Erik

CORPORATE SOURCE: Rega Institute for Medical Research, K.U. Leuven, Louvain, B-3000, Belg.

SOURCE: Medicinal Research Reviews (2009), 29(4), 611-645
CODEN: MRREDD; ISSN: 0198-6325

PUBLISHER: John Wiley & Sons, Inc.

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. The ten stories told here deal with (i) ribavirin as an inhibitor of IMP dehydrogenase and (ii) ribavirin, in combination with pegylated interferon, as the present "standard of care" for hepatitis C; (iii) S-adenosylhomocysteine hydrolase inhibitors as antiviral agents; (iv) new adamantane derivs. for the treatment of influenza A virus infections; (v) 5-substituted 2'-deoxyuridines (i.e. IDU, TFT) for the treatment of herpes simplex virus (HSV) infections; (vi) acyclic guanosine analogs (e.g. acyclovir) for the treatment of HSV infections; (vii) OMP decarboxylase inhibitors (i.e. pyrazofurin) and CTP synthetase inhibitors (i.e. cyclopentenylcytosine) as possible antiviral agents; (viii) the future of cidofovir (and alkoxyalkyl esters thereof) and ST-246 as potential antipoxvirus agents; (ix) the two decade journey from tivoirapine to rilpivirine in the ultimate therapy of HIV infections; and (x) the extension

of the therapeutic application of tenofovir disoproxil fumarate (Viread) to the treatment of hepatitis B virus infection, in addition to HIV infection.

IT 869572-92-9, ST-246

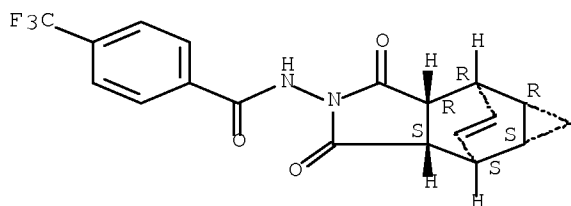
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ST-246 was discovered which may be useful as potential antipoxvirus agent)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 207 THERE ARE 207 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:804151 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 152:89376

TITLE: Antiviral targets in orthopoxviruses

AUTHOR(S): Prichard, Mark N.; Kern, Earl R.

CORPORATE SOURCE: Department of Pediatrics, University of Alabama at Birmingham, Birmingham, AL, 35233-1711, USA

SOURCE: Antiviral Research (2009), 167-186. Editor(s): LaFemina, Robert L. American Society for Microbiology: Washington, D. C. CODEN: 69LQTN; ISBN: 978-1-55581-439-7

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

AB A review discusses the many targets for orthopoxviruses that might be exploited in the discovery of addnl. agents for these potential diseases, the viral proteins that perform critical functions, and specific inhibitors that affect these processes.

IT 869572-92-9, ST-246

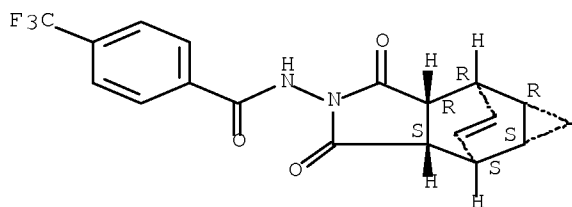
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(drug inhibiting enzymic reaction or viral replication such as CMX001, ST-246 and cidofovir showed good bioavailability and may be effective in treatment of patient infected with orthopoxvirus)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 276 THERE ARE 276 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L9 ANSWER 7 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:715719 CAPLUS Full-text

DOCUMENT NUMBER: 151:189165

TITLE: Nonhuman primates are protected from smallpox virus or monkeypox virus challenges by the antiviral drug ST-246

AUTHOR(S): Huggins, John; Goff, Arthur; Hensley, Lisa; Mucker, Eric; Shamblin, Josh; Wlazlowski, Carly; Johnson, Wendy; Chapman, Jennifer; Larsen, Tom; Twenhafel, Nancy; Kareem, Kevin; Damon, Inger K.; Byrd, Chelsea M.; Bolken, Tove' C.; Jordan, Robert; Hruby, Dennis
CORPORATE SOURCE: U.S. Army Medical Research Institute of Infectious Diseases, Frederick, MD, USA

SOURCE: Antimicrobial Agents and Chemotherapy (2009), 53(6), 2620-2625

CODEN: AMACCQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB ST-246, a potent orthopoxvirus egress inhibitor, is safe and effective at preventing disease and death in studies of small-animal models involving challenge by several different pathogenic poxviruses. In this report, the antiviral efficacy of ST-246 in treatment of nonhuman primates infected with variola virus or monkeypox virus was assessed. The data indicate that oral dosing once per day with ST-246 protects animals from poxvirus disease, as measured by redns. in viral load and nos. of lesions and enhancement of survival.

IT 869572-92-9, ST-246

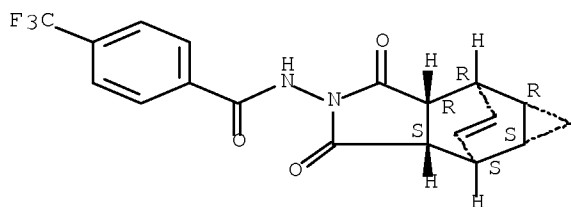
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ST-246 protection of nonhuman primates from smallpox or monkeypox virus challenges)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2009:693982 CAPLUS Full-text
DOCUMENT NUMBER: 151:77906
TITLE: Preparation of crystalline St-246 monohydrate as
poxvirus inhibitors
INVENTOR(S): Dai, Qiuyun; Dong, Mingxin; Hu, Jie
PATENT ASSIGNEE(S): Research Institute of Bioengineering, Academy of
Military Medical Sciences, The Chinese People's
Liberation Army, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 18pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|--------------------|------------------|----------|
| CN 101445478 | A | 20090603 | CN 2008-10118686 | 20080822 |
| PRIORITY APPLN. INFO.: | | | CN 2008-10118686 | 20080822 |
| OTHER SOURCE(S): | | CASREACT 151:77906 | | |

AB The invention relates to ST-246·H₂O compound ST-246·H₂O compound can be prepared by reacting 3a,4,4a,5,5a,6-hexahydro-4,6-etheno-1H-cycloprop[*f*]isobenzofuran-1,3(3aH)-dione (preparation given), with p-trifluoromethylbenzoic acid hydrazide in the presence of organic base and organic solvent under nitrogen protection and refluxing. Organic base is diisopropylethylamine. Organic solvent is anhydrous ethanol or isopropanol. The invention also relates to ST-246·H₂O monoclinic system which has the following characteristics: space group: C2/c; lattice parameters: a=28.724(2), b=10.533(1), c=12.902(a) angstrom, β=112.18(1)°; cell volume: V=3614.7(6) angstrom³; intracellular mol. number Z=8. ST-246·H₂O monoclinic crystals can be prepared by refluxing ST-246 in organic solvent under heating, adding warm water, cooling at 0-4° for 1-8 h, filtrating, washing, drying at 45-70° for 4-48 h, wherein organic solvent is isopropanol, Et acetate or 90-100% ethanol solution The invention further relates to anti-variola virus drugs containing ST-246·H₂O as active ingredient. The inventive ST-246·H₂O compound has advantages of good stability, no hygroscopic effect, no caking after micronization and high bioavailability.

IT 1162664-19-8P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(crystal structure, drug candidate; preparation of crystalline St-246

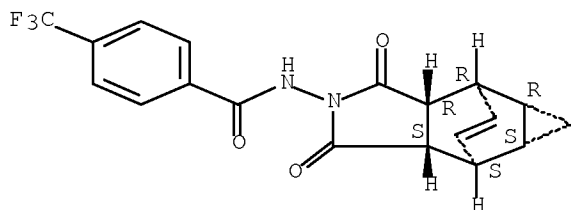
monohydrate

as poxvirus inhibitors)

RN 1162664-19-8 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, hydrate (1:1), rel- (CA INDEX NAME)

Relative stereochemistry.



IT 869572-92-9P, St-246

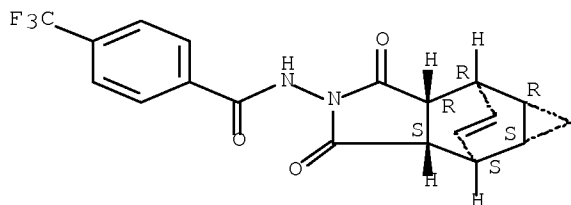
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(drug candidate; preparation of crystalline St-246 monohydrate as poxvirus inhibitors)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 9 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:585358 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 151:115681

TITLE: ST-246 antiviral efficacy in a nonhuman primate monkeypox model: determination of the minimal effective dose and human dose justification

AUTHOR(S): Jordan, Robert; Goff, Arthur; Frimm, Annie; Corrado, Michael L.; Hensley, Lisa E.; Byrd, Chelsea M.; Mucker, Eric; Shamblin, Josh; Bolken, Tove' C.; Wlazlowski, Carly; Johnson, Wendy; Chapman, Jennifer; Twenhafel, Nancy; Tyavanagimatt, Shanthakumar;

Amantana, Adams; Chinsangaram, Jarasvech; Hruby,
Dennis E.; Huggins, John
CORPORATE SOURCE: SIGA Technologies, Corvallis, OR, USA
SOURCE: Antimicrobial Agents and Chemotherapy (2009), 53(5),
1817-1822
CODEN: AMACCQ; ISSN: 0066-4804
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Therapeutics for the treatment of pathogenic orthopoxvirus infections are being sought. In the absence of patients with disease, animal models of orthopoxvirus disease are essential for evaluation of the efficacies of antiviral drugs and establishment of the appropriate dose and duration of human therapy. Infection of nonhuman primates (NHP) by the i.v. injection of monkeypox virus has been used to evaluate a promising therapeutic drug candidate, ST-246. ST-246 administered at 3 days postinfection (which corresponds to the secondary viremia stage of disease) at four different doses (from 100 mg/kg of body weight down to 3 mg/kg) once a day for 14 days was able to offer NHP 100% protection from a lethal infection with monkeypox virus and reduce the viral load and lesion formation. In NHP, the administration of ST-246 at a dose of 10 mg/kg/day for 14 days resulted in levels of blood exposure comparable to the levels attained in humans administered 400 mg in the fed state. These results suggest that administration of an oral dosage of 400 mg once daily for 14 days will be effective for the prevention or treatment of smallpox or monkeypox infections in humans.

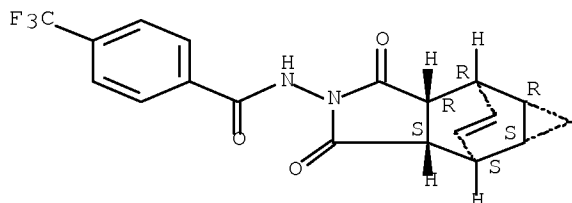
IT 869572-92-9, ST-246

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)
(ST-246 antiviral efficacy in nonhuman primate monkeypox model)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel-
(CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2009:299685 CAPLUS Full-text

DOCUMENT NUMBER: 150:530404

TITLE: In vitro efficacy of ST246 against smallpox and
monkeypox

AUTHOR(S): Smith, Scott K.; Olson, Victoria A.; Karem, Kevin L.;
Jordan, Robert; Hruby, Dennis E.; Damon, Inger K.

CORPORATE SOURCE: Poxvirus Team, Poxvirus and Rabies Branch, Division of
Viral and Rickettsial Diseases, Centers for Disease
Control and Prevention, National Center for Zoonotic,
Viral, and Enteric Diseases, Atlanta, GA, USA
SOURCE: Antimicrobial Agents and Chemotherapy (2009), 53(3),
1007-1012
CODEN: AMACCQ; ISSN: 0066-4804
PUBLISHER: American Society for Microbiology
DOCUMENT TYPE: Journal
LANGUAGE: English

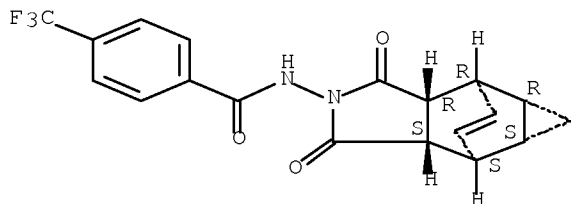
AB Since the eradication of smallpox and the cessation of routine childhood
vaccination for smallpox, the proportion of the world's population susceptible
to infection with orthopoxviruses, such as variola virus (the causative agent
of smallpox) and monkeypox virus, has grown substantially. In the United
States, the only vaccines for smallpox licensed by the Food and Drug
Administration (FDA) have been live virus vaccines. Unfortunately, a
substantial number of people cannot receive live virus vaccines due to
contraindications. Furthermore, no antiviral drugs have been fully approved
by the FDA for the prevention or treatment of orthopoxvirus infection. Here,
we show the inhibitory effect of one new antiviral compound, ST-246, on the in
vitro growth properties of six variola virus strains and seven monkeypox virus
strains. We performed multiple assays to monitor the cytopathic effect and to
evaluate the reduction of viral progeny production and release in the presence
of the compound ST-246 had 50% effective concns. of $\leq 0.067 \mu\text{M}$ against variola
virus and $< 0.04 \mu\text{M}$ against monkeypox virus. In a dose-dependent manner,
plaque size and comet tail formation were markedly reduced in the presence of
the drug at low, noncytotoxic concns. between 0.015 and 0.05 μM . Our in vitro
phenotype data suggest that ST-246 inhibits variola and monkeypox viruses
similarly by reducing the production and release of enveloped orthopoxvirus
and support the development of ST-246 as an antiviral therapeutic compound for
the treatment of severe systemic orthopoxvirus infections.

IT 869572-92-9
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(in vitro efficacy of ST246 against smallpox and monkeypox)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-
dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel-
(CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ACCESSION NUMBER: 2009:186683 CAPLUS Full-text
DOCUMENT NUMBER: 151:115658
TITLE: Specific targeting of the F13L protein by ST-246
affects orthopoxvirus production differently
AUTHOR(S): Duraffour, Sophie; Vigne, Solenne; Vermeire, Kurt;
Garcel, Aude; Vanstreels, Els; Daelemans, Dirk; Yang,
Guang; Jordan, Robert; Hruby, Dennis E.; Crance,
Jean-Marc; Garin, Daniel; Andrei, Graciela; Snoeck,
Robert
CORPORATE SOURCE: Rega Institute for Medical Research, Louvain, Belg.
SOURCE: Antiviral Therapy (2008), 13(8), 977-990
CODEN: ANTHFA; ISSN: 1359-6535
PUBLISHER: International Medical Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB ST-246 is a potent anti-orthopoxviral mol. targeting the F13L protein of vaccinia virus, which is involved in the wrapping of viruses. The discrepancy in sensitivities of several orthopoxviruses to ST-246 has raised questions about potential differences in their replicative cycles and/or the presence of another drug target. D. gradients were used to evaluate the differences between the viral cycles of vaccinia, cowpox and camelpox viruses. Also, to investigate if ST-246 inhibits a single target, we compared its activity to that of small interfering RNAs designed to silence the F13L gene (siF13Ls). We showed that the spread of vaccinia virus involved both intracellular and extracellular enveloped viruses, whereas both cowpox and camelpox viruses seemed to propagate via non-enveloped intracellular forms and cell-associated viral particles. Although ST-246 exerted a clear antiviral activity by interfering with the egress of the virus from infected cells, we observed that cowpox and camelpox viruses, in contrast to vaccinia virus, could be directed towards a lytic cycle under ST-246 treatment. We specifically knocked down the F13L transcripts of vaccinia and camelpox viruses by >85%, reduced virus progeny by 90% and showed that siF13Ls affect camelpox and vaccinia virus propagation differently. Flow cytometry data validated that ST-246 interfered with the activity of the F13L protein, whereas siF13Ls silenced the F13L gene. Our observations support that vaccinia, cowpox and camelpox viruses exhibit different levels of sensitivity to ST-246 because of dissimilarities between their ways of propagation, and provide a better understanding of the mode of action of ST-246.

IT 869572-92-9, ST-246

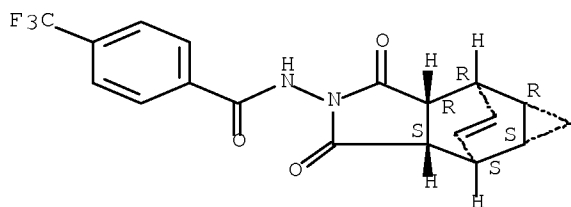
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)

(ST-246 specifically targeting F13L protein differently affected vaccinia, cowpox and camelpox virus production due to dissimilarities between ways of propagation by orthopoxviruses in human embryonic lung fibroblast)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel-
(CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

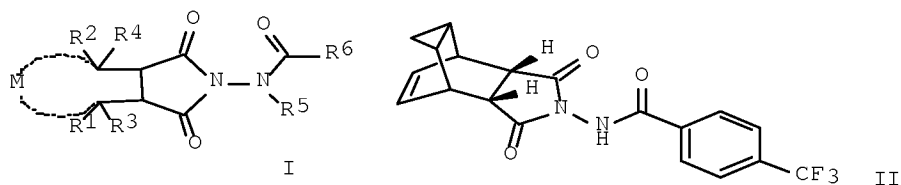
L9 ANSWER 12 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2008:1300510 CAPLUS Full-text
 DOCUMENT NUMBER: 149:513685
 TITLE: Preparation of isoindole derivatives for treatment and prevention of orthopoxvirus infections
 INVENTOR(S): Jordan, Robert; Bailey, Thomas R.; Rippin, Susan R.; Dai, Dongcheng
 PATENT ASSIGNEE(S): Siga Technologies, Inc., USA
 SOURCE: PCT Int. Appl., 82pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|-------------|
| WO 2008130348 | A1 | 20081030 | WO 2007-US9751 | 20070423 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| US 20070287735 | A1 | 20071213 | US 2007-785998 | 20070423 |
| CA 2685198 | A1 | 20080703 | CA 2007-2685198 | 20070423 |
| AU 2007351866 | A1 | 20081030 | AU 2007-351866 | 20070423 |
| CA 2685153 | A1 | 20081030 | CA 2007-2685153 | 20070423 |
| EP 2148860 | A1 | 20100203 | EP 2007-755857 | 20070423 |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS | | | | |
| PRIORITY APPLN. INFO.: | | | US 2007-785998 | A 20070423 |
| | | | US 2003-480182P | P 20030620 |
| | | | WO 2004-US19552 | W 20040618 |
| | | | US 2006-561153 | A2 20060405 |
| | | | WO 2007-US9750 | W 20070423 |
| | | | WO 2007-US9751 | W 20070423 |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S):
GI

MARPAT 149:513685



AB The title compds. with general formula I [wherein R1, R2, and R5 = independently H or alkyl; R3 and R4 = independently H, alkyl, or R3 and R4 together with the carbons to which they are attached form an (un)substituted cyclic structure; R6 = (un)substituted alkyl, cycloalkyl, alkenyl, alkynyl, aryl, etc.; M = (un)substituted -CH₂CH₂- or -CH=CH-] or pharmaceutically acceptable salts thereof were prepared for the treatment or prophylaxis of viral infections and diseases associated therewith, particularly those viral infections and associated diseases caused by the orthopoxvirus. For example, compound II was prepared in a multi-step synthesis. II exhibited inhibitory activity against vaccinia virus-induced CPE with EC₅₀ value of $\leq 0.5 \mu\text{M}$. Formulations containing II as an active ingredient were also disclosed in the invention.

IT 959923-19-4P

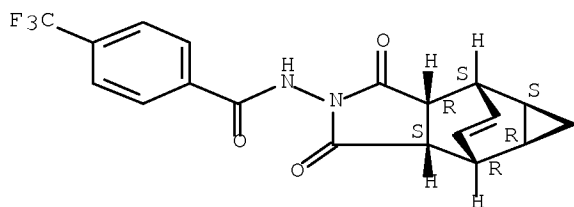
RL: PAC (Pharmacological activity); PRPH (Prophetic); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of isoindole derivs. for treatment and prevention of orthopoxvirus infections)

RN 959923-19-4 CAPLUS

CN Benzamide, N-[(3aR, 4S, 4aS, 5aR, 6R, 6aS)-3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



| | | | |
|----|--------------|--------------|--------------|
| IT | 816458-39-6P | 935765-96-1P | 935765-99-4P |
| | 935766-00-0P | 935766-01-1P | 935766-02-2P |
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| | 935766-06-6P | 935766-07-7P | 935766-09-9P |
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| | 959922-77-1P | 959922-79-3P | 959922-82-8P |
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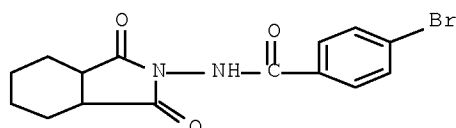
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 959923-14-9P 959923-15-0P 959923-16-1P
 959923-17-2P 959923-18-3P 959923-20-7P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
 (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

(drug candidate; preparation of isoindole derivs. for treatment and
 prevention of orthopoxvirus infections)

RN 816458-39-6 CAPLUS

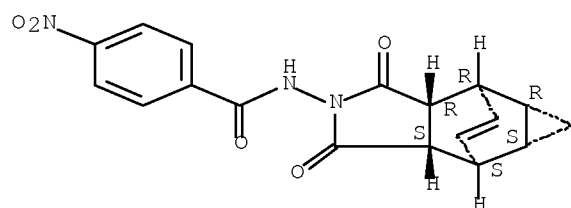
CN Benzamide, 4-bromo-N-(octahydro-1,3-dioxo-2H-isoindol-2-yl)- (CA INDEX
 NAME)



RN 935765-96-1 CAPLUS

CN Benzamide, 4-nitro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-
 octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA
 INDEX NAME)

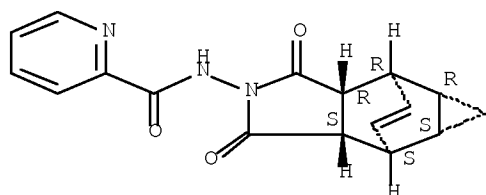
Relative stereochemistry.



RN 935765-99-4 CAPLUS

CN 2-Pyridinecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-
 octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA
 INDEX NAME)

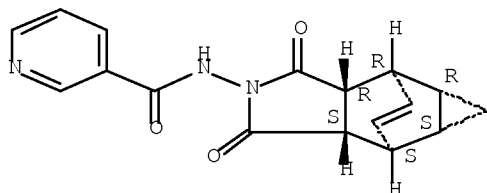
Relative stereochemistry.



RN 935766-00-0 CAPLUS

CN 3-Pyridinecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

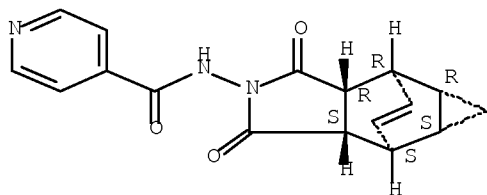
Relative stereochemistry.



RN 935766-01-1 CAPLUS

CN 4-Pyridinecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

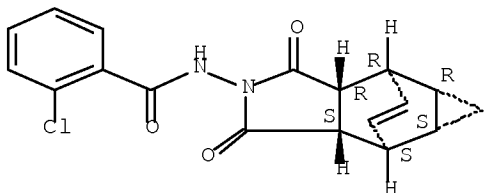
Relative stereochemistry.



RN 935766-02-2 CAPLUS

CN Benzamide, 2-chloro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

Relative stereochemistry.

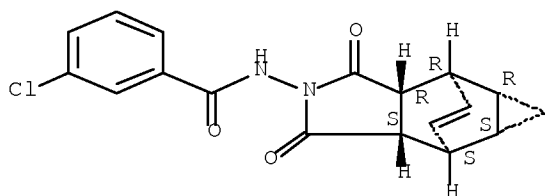


RN 935766-03-3 CAPLUS

CN Benzamide, 3-chloro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

INDEX NAME)

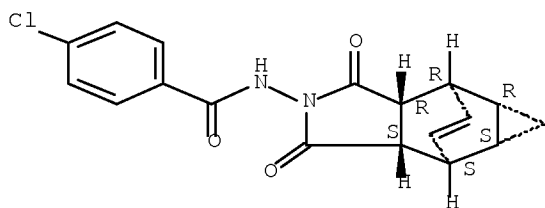
Relative stereochemistry.



RN 935766-04-4 CAPLUS

CN Benzamide, 4-chloro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

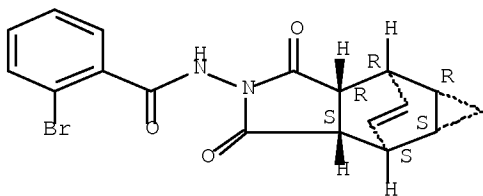
Relative stereochemistry.



RN 935766-05-5 CAPLUS

CN Benzamide, 2-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

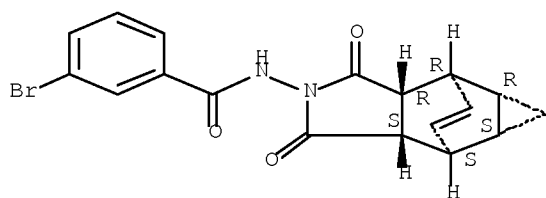
Relative stereochemistry.



RN 935766-06-6 CAPLUS

CN Benzamide, 3-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

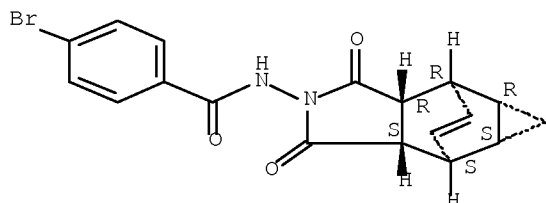
Relative stereochemistry.



RN 935766-07-7 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

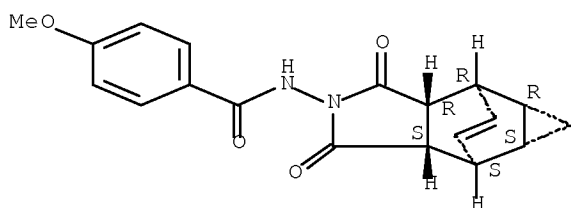
Relative stereochemistry.



RN 935766-09-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-methoxy-, rel- (CA INDEX NAME)

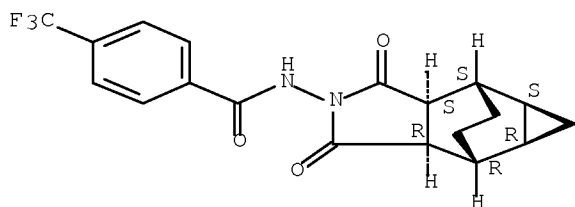
Relative stereochemistry.



RN 945962-36-7 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-octahydro-1,3-dioxo-4,6-ethanocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

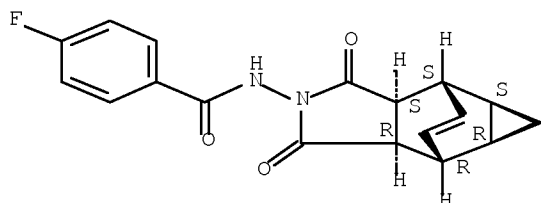
Relative stereochemistry.



RN 959922-75-9 CAPLUS

CN Benzamide, 4-fluoro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

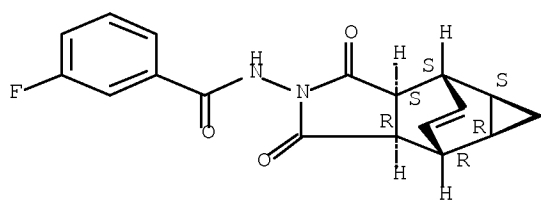
Relative stereochemistry.



RN 959922-76-0 CAPLUS

CN Benzamide, 3-fluoro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

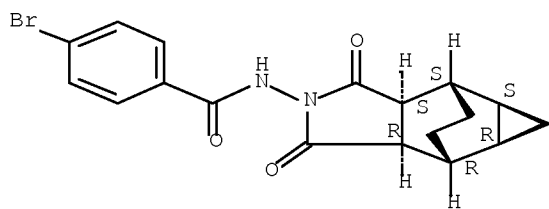
Relative stereochemistry.



RN 959922-77-1 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

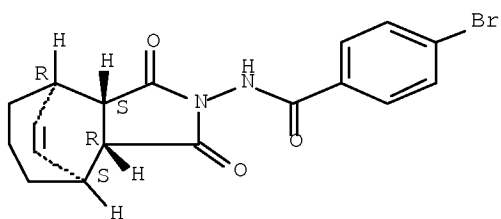
Relative stereochemistry.



RN 959922-79-3 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4S,8R,8aS)-3,3a,4,5,6,7,8,8a-octahydro-1,3-dioxo-4,8-ethenocyclohepta[c]pyrrol-2(1H)-yl]-, rel- (CA INDEX NAME)

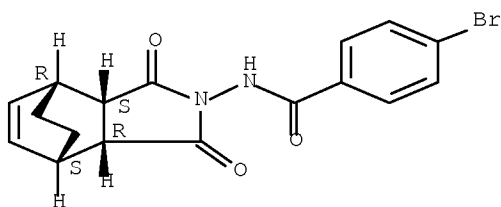
Relative stereochemistry.



RN 959922-82-8 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4S,7R,7aS)-1,3,3a,4,5,6,7,7a-octahydro-1,3-dioxo-4,7-etheno-2H-isoindol-2-yl]-, rel- (CA INDEX NAME)

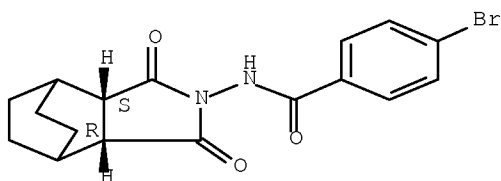
Relative stereochemistry.



RN 959922-85-1 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,7aS)-octahydro-1,3-dioxo-4,7-ethano-2H-isoindol-2-yl]-, rel- (CA INDEX NAME)

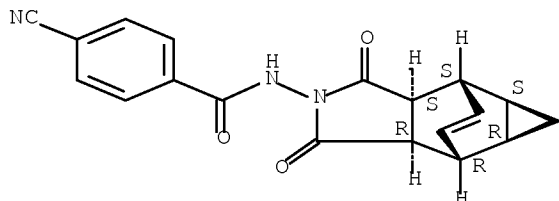
Relative stereochemistry.



RN 959922-88-4 CAPLUS

CN Benzamide, 4-cyano-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

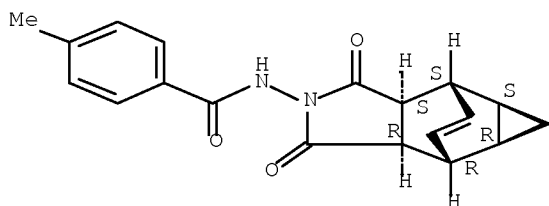
Relative stereochemistry.



RN 959922-95-3 CAPLUS

CN Benzamide, 4-methyl-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

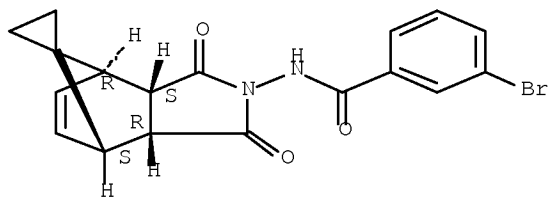
Relative stereochemistry.



RN 959922-98-6 CAPLUS

CN Benzamide, 3-bromo-N-[(3'aR,4'S,7'R,7'aS)-1',3',3',4',7',7'a-hexahydro-1',3'-dioxospiro[cyclopropane-1,8'-[4,7]methano[2H]isoindol]-2'-yl]-, rel- (CA INDEX NAME)

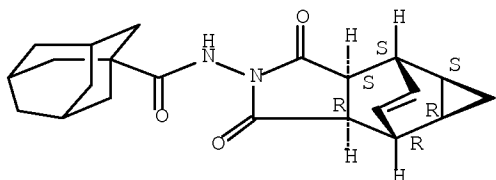
Relative stereochemistry.



RN 959923-00-3 CAPLUS

CN Tricyclo[3.3.1.1^{3,7}]decane-1-carboxamide,
 N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-
 ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

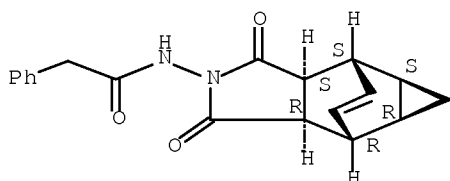
Relative stereochemistry.



RN 959923-03-6 CAPLUS

CN Benzeneacetamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

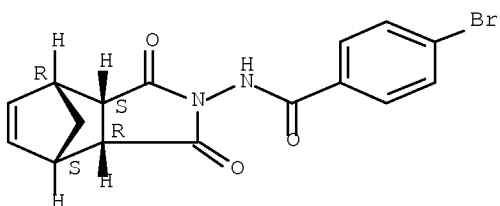
Relative stereochemistry.



RN 959923-05-8 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4S,7R,7aS)-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-methano-2H-isoindol-2-yl]-, rel- (CA INDEX NAME)

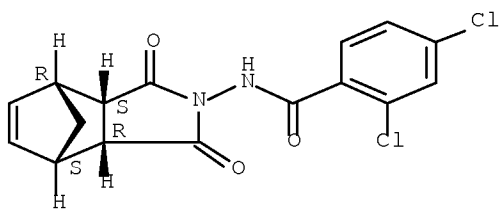
Relative stereochemistry.



RN 959923-06-9 CAPLUS

CN Benzamide, 2,4-dichloro-N-[(3aR,4S,7R,7aS)-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-methano-2H-isoindol-2-yl]-, rel- (CA INDEX NAME)

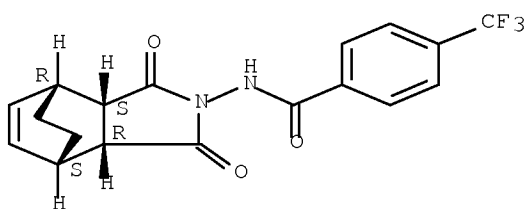
Relative stereochemistry.



RN 959923-07-0 CAPLUS

CN Benzamide, N-[(3aR,4S,7R,7aS)-1,3,3a,4,5,6,7,7a-octahydro-1,3-dioxo-4,7-etheno-2H-isoindol-2-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

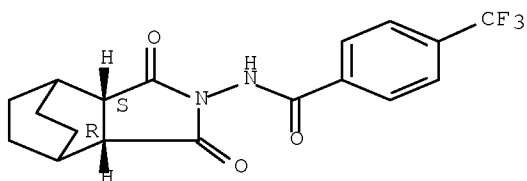
Relative stereochemistry.



RN 959923-08-1 CAPLUS

CN Benzamide, N-[(3aR,7aS)-octahydro-1,3-dioxo-4,7-ethano-2H-isoindol-2-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

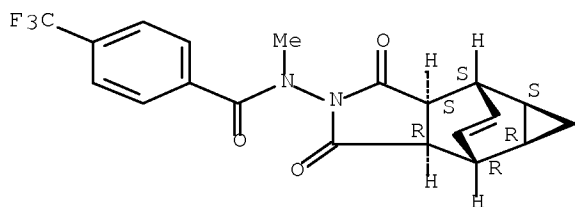
Relative stereochemistry.



RN 959923-09-2 CAPLUS

CN Benzamide, N-methyl-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

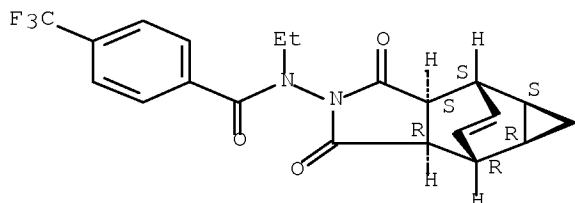
Relative stereochemistry.



RN 959923-10-5 CAPLUS

CN Benzamide, N-ethyl-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

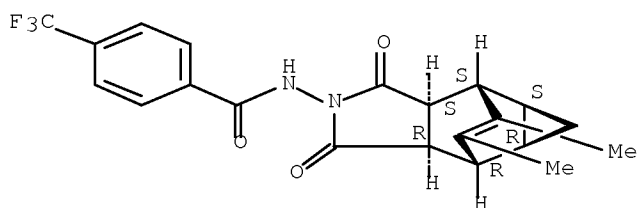
Relative stereochemistry.



RN 959923-11-6 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-7,8-dimethyl-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

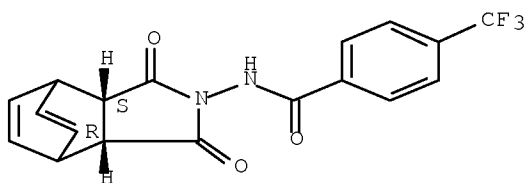
Relative stereochemistry.



RN 959923-12-7 CAPLUS

CN Benzamide, N-[(3aR,7aS)-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-etheno-2H-isoindol-2-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

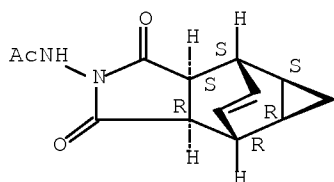
Relative stereochemistry.



RN 959923-13-8 CAPLUS

CN Acetamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

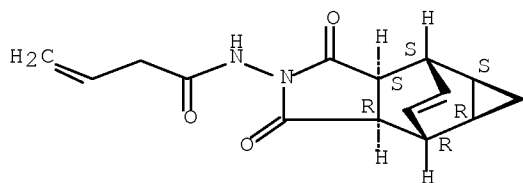
Relative stereochemistry.



RN 959923-14-9 CAPLUS

CN 3-Butenamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

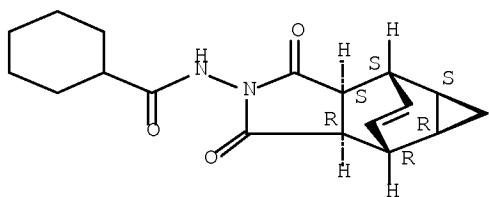
Relative stereochemistry.



RN 959923-15-0 CAPLUS

CN Cyclohexanecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

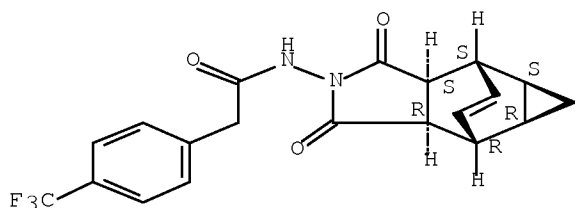
Relative stereochemistry.



RN 959923-16-1 CAPLUS

CN Benzeneacetamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

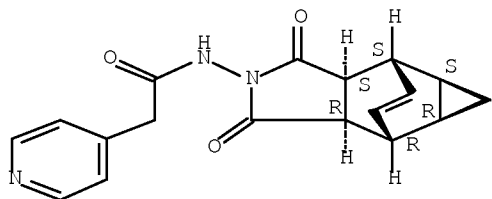
Relative stereochemistry.



RN 959923-17-2 CAPLUS

CN 4-Pyridineacetamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

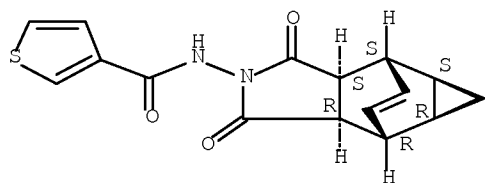
Relative stereochemistry.



RN 959923-18-3 CAPLUS

CN 3-Thiophenecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

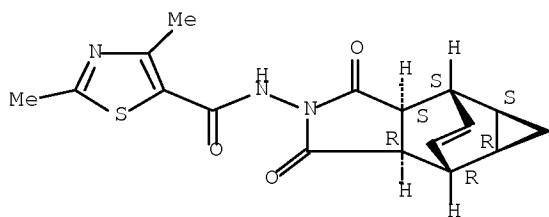
Relative stereochemistry.



RN 959923-20-7 CAPLUS

CN 5-Thiazolecarboxamide, 2,4-dimethyl-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



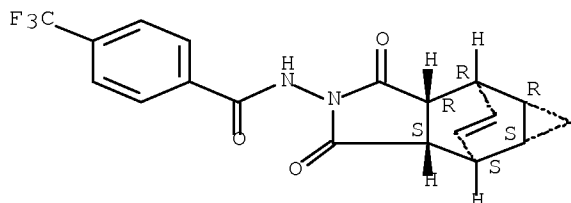
IT 869572-92-9P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of isoindole derivs. for treatment and prevention of orthopoxvirus infections)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR, 4R, 4aR, 5aS, 6S, 6aS)-3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ACCESSION NUMBER: 2008:1057356 CAPLUS Full-text

DOCUMENT NUMBER: 150:320247

TITLE: Emerging antiviral drugs

AUTHOR(S): De Clercq, Erik

CORPORATE SOURCE: Rega Institute for Medical Research, Katholieke Universiteit, Louvain, B-3000, Belg.

SOURCE: Expert Opinion on Emerging Drugs (2008), 13(3), 393-416

CODEN: EOEDA3; ISSN: 1472-8214

PUBLISHER: Informa Healthcare

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review. Foremost among the newly described antiviral agents that may be developed into drugs are, for the treatment of human papilloma virus (HPV) infections, cPrPMEDAP; for the treatment of herpes simplex virus (HSV) infections, BAY 57-1293; for the treatment of varicella-zoster virus (VZV) infections, FV-100 (prodrug of Cf 1743); for the treatment of cytomegalovirus

(CMV) infections, maribavir; for the treatment of poxvirus infections, ST-246; for the treatment of hepatitis B virus (HBV) infections, tenofovir disoproxil fumarate (TDF) (which in the meantime has already been approved in the EU); for the treatment of various DNA virus infections, the hexadecyloxypropyl (HDP) and octadecyloxyethyl (ODE) prodrugs of cidofovir; for the treatment of orthomyxovirus infections (i.e., influenza), peramivir; for the treatment of hepatic virus infections (i.e., hepatitis C), the protease inhibitors telaprevir and boceprevir, the nucleoside RNA replicase inhibitors (NRRIs) PSI-6130 and R1479, and various non-nucleoside RNA replicase inhibitors (NNRRIs); for the treatment of human immunodeficiency virus (HIV) infections, integrase inhibitors (INIs) such as elvitegravir, nucleoside reverse transcriptase inhibitors (NRTIs) such as apricitabine, non-nucleoside reverse transcriptase inhibitors (NNRTIs) such as rilpivirine and dapivirine; and for the treatment of both HCV and HIV infections, cyclosporin A derivs. such as the non-immunosuppressive Debio-025.

IT 869572-92-9, ST-246

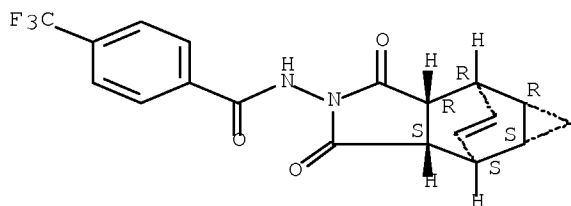
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antiviral ST-246 may be developed into drug for treatment of patient infected with poxvirus)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)
REFERENCE COUNT: 177 THERE ARE 177 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L9 ANSWER 14 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:674466 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 149:32294

TITLE: Preparation of acylaminothiazole derivatives as vascular adhesion protein 1 (VAP-1) inhibitors

INVENTOR(S): Matsukawa, Tatsuya; Masuzaki, Kazuhiro; Yamamoto, Noriyuki; Takewaki, Makoto; Tanaka, Hiroyuki; Kawai, Yosuke; Yamamoto, Sumiyo

PATENT ASSIGNEE(S): R-Tech Ueno, Ltd., Japan

SOURCE: PCT Int. Appl., 125pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2008066145 | A1 | 20080605 | WO 2007-JP73137 | 20071130 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |

PRIORITY APPLN. INFO.:

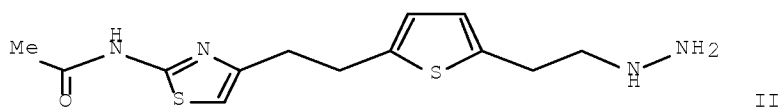
JP 2006-325061

A 20061130

OTHER SOURCE(S):

MARPAT 149:32294

GI



AB The title compds. represented by the formula R1-NH-X-Y-Z [R1 = acyl; X = divalent group derived from (un)substituted thiazole; Y = J-L-M; J = a bond, lower alkylene, lower alkenylene, lower alkynylene, (CH2)nO, (CH2)nNH, (CH2)nCO, (CH2)nSO2; n = an integer of 0-6; L = a bond, O, NH, CO, SO2; M = a bond, lower alkylene, lower alkenylene, lower alkynylene; Z = A-B-D-E; A = a divalent group derived from benzene or thiophene; B = NR2-CO, (CH2)n, (CH2)nCO; R2 = H, lower alkyl, acyl; n = an integer of 0-6; D = NR3; R3 = H, lower alkyl, alkoxy carbonyl, acyl; E = (un)substituted NH2] or pharmacol. acceptable salts thereof were prepared These compds. are useful as VAP-1 inhibitors and pharmaceutical agents for the prevention or treatment of a VAP-1-related disease such as macular edema, cystoid macular edema, and a disease associated with the increase in vascular permeability. Thus, N-[4-[2-[5-(2-hydroxyethyl)thiophen-2-yl]ethyl]thiazol-2-yl]acetamide was condensed with tert-Bu (1,3-dioxo-1,3-dihydro-2H-isoindol-2-yl)carbamate using Ph3P and di-Et azodicarboxylate in toluene/THF while slowly raising the temperature from 0° to room temperature for 15 h to give tert-Bu [2-[5-[2-[2-(acetylamino)-1,3-thiazol-4-yl]ethyl]thiophen-2-yl]ethyl](1,3-dioxo-1,3-dihydro-2H-isoindol-2-yl)carbamate which was treated with methylhydrazine in THF while slowly raising temperature from -20 to room temperature for 7 h to give tert-Bu N-[2-[5-[2-[2-(acetylamino)-1,3-thiazol-4-yl]ethyl]thiophen-2-yl]ethyl]hydrazinecarboxylate (I). I was treated with HCl in a mixture of CH2Cl2, THF, and Et2O at room temperature for 22 h to give N-(4-[2-[5-(2-hydrazinoethyl)thiophen-2-yl]ethyl]-1,3-thiazol-2-yl)acetamide hydrochloride which was converted into N-[4-[2-[5-(2-hydrazinoethyl)thiophen-2-yl]ethyl]-1,3-thiazol-2-yl]acetamide (II) maleate. II maleate showed IC50 of 0.001 and 0.0002 μM against human and rat VAP-1 enzyme (semicarbazide sensitive amine oxidase, SSAO), resp.

IT 1030893-93-6P, tert-Butyl

[2-[4-[2-(2-acetylamino-1,3-thiazol-4-yl)ethyl]phenyl]ethyl](1,3-dioxo-1,3-

dihydro-2H-isoindol-2-yl)carbamate 1030893-98-1P, tert-Butyl
 [3-[4-[2-[2-(acetylamino)-1,3-thiazol-4-yl]ethyl]phenyl]propyl](1,3-dioxo-
 1,3-dihydro-2H-isoindol-2-yl)carbamate 1030894-22-4P,
 tert-Butyl [2-[5-[2-[2-(acetylamino)-1,3-thiazol-4-yl]ethyl]thiophen-2-
 yl]ethyl](1,3-dioxo-1,3-dihydro-2H-isoindol-2-yl)carbamate
 1030894-30-4P, tert-Butyl [3-[5-[2-(2-acetylamino-1,3-thiazol-4-
 yl)ethyl]thiophen-2-yl]propyl](1,3-dioxo-1,3-dihydro-2H-isoindol-2-
 yl)carbamate

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

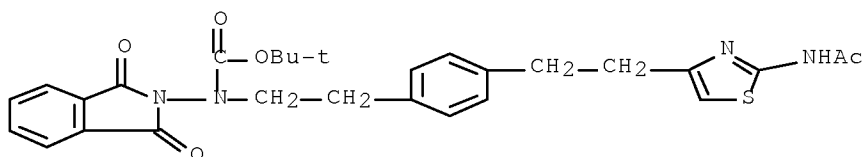
(intermediate; preparation of acylaminothiazole derivs. as vascular

adhesion

protein 1 (VAP-1) inhibitors)

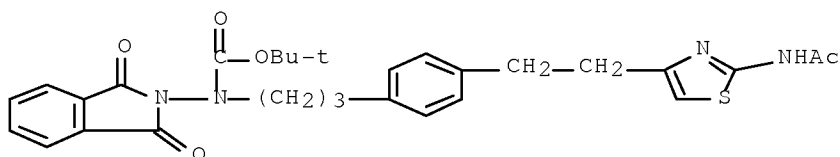
RN 1030893-93-6 CAPLUS

CN Carbamic acid, N-[2-[4-[2-[2-(acetylamino)-4-thiazolyl]ethyl]phenyl]ethyl]-
 N-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 1,1-dimethylethyl ester (CA
 INDEX NAME)



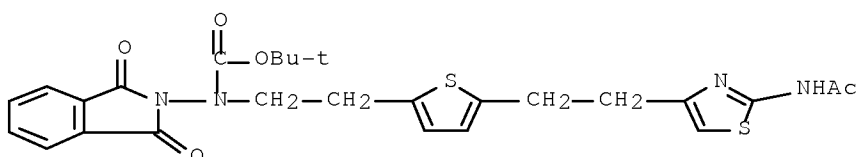
RN 1030893-98-1 CAPLUS

CN Carbamic acid, N-[3-[4-[2-[2-(acetylamino)-4-
 thiazolyl]ethyl]phenyl]propyl]-N-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-
 , 1,1-dimethylethyl ester (CA INDEX NAME)

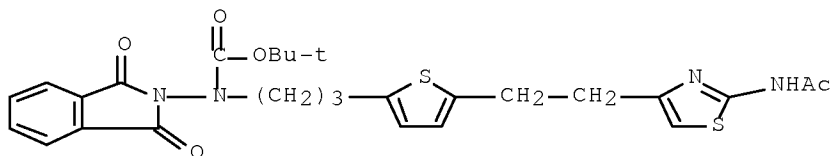


RN 1030894-22-4 CAPLUS

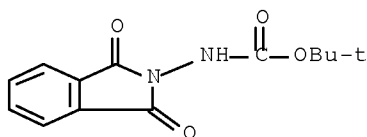
CN Carbamic acid, N-[2-[5-[2-[2-(acetylamino)-4-thiazolyl]ethyl]-2-
 thienyl]ethyl]-N-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-,
 1,1-dimethylethyl ester (CA INDEX NAME)



RN 1030894-30-4 CAPLUS
 CN Carbamic acid, N-[3-[5-[2-[2-(acetylamino)-4-thiazolyl]ethyl]-2-thienyl]propyl]-N-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 1,1-dimethylethyl ester (CA INDEX NAME)



IT 34387-89-8, tert-Butyl (1,3-dioxo-1,3-dihydro-2H-isoindol-2-yl)carbamate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of acylaminothiazole derivs. as vascular adhesion protein 1 (VAP-1) inhibitors)
 RN 34387-89-8 CAPLUS
 CN Carbamic acid, N-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-, 1,1-dimethylethyl ester (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)
 REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 15 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2008:631105 CAPLUS Full-text
 DOCUMENT NUMBER: 149:167212
 TITLE: Evaluation of orally delivered ST-246 as postexposure prophylactic and antiviral therapeutic in an aerosolized rabbitpox rabbit model
 AUTHOR(S): Nalca, Aysegul; Hatkin, Josh M.; Garza, Nicole L.; Nichols, Donald K.; Norris, Sarah W.; Hruby, Dennis E.; Jordan, Robert
 CORPORATE SOURCE: Center for Aerobiological Sciences, U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), Fort Detrick, Fort Detrick, MD, USA
 SOURCE: Antiviral Research (2008), 79(2), 121-127
 CODEN: ARSRDR; ISSN: 0166-3542
 PUBLISHER: Elsevier B.V.
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB Orthopoxviruses, such as variola and monkeypox viruses, can cause severe disease in humans when delivered by the aerosol route, and thus represent significant threats to both military and civilian populations. Currently, there are no antiviral therapies approved by the U.S. Food and Drug Administration (FDA) to treat smallpox or monkeypox infection. In this study, we showed that administration of the antiviral compound ST-246 to rabbits by oral gavage, once daily for 14 days beginning 1 h postexposure (p.e.), resulted in 100% survival in a lethal aerosolized rabbitpox model used as a surrogate for smallpox. Furthermore, efficacy of delayed treatment with ST-246 was evaluated by beginning treatment on days 1, 2, 3, and 4 p.e. Although a limited number of rabbits showed less severe signs of the rabbitpox disease from the day 1 and day 2 p.e. treatment groups, their illness resolved very quickly, and the survival rates for these group of rabbits were 88% and 100%, resp. But when the treatment was started on days 3 or 4 p.e., survival was 67% and 33%, resp. This work suggests that ST-246 is a very potent antiviral compound against aerosolized rabbitpox in rabbits and should be investigated for further development for all orthopoxvirus diseases.

IT 869572-92-9, ST-246

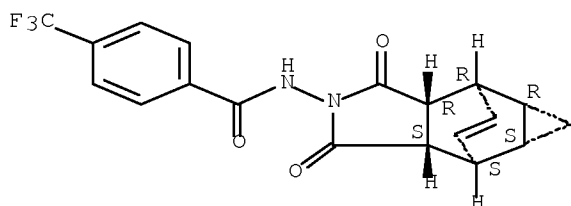
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(evaluation of orally delivered ST-246 as postexposure prophylactic and antiviral therapeutic in an aerosolized rabbitpox rabbit model)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 7 THERE ARE 7 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 16 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:562084 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 148:509383

TITLE: Single-dose safety and pharmacokinetics of ST-246, a novel orthopoxvirus egress inhibitor

AUTHOR(S): Jordan, Robert; Tien, Deborah; Bolken, Tove' C.; Jones, Kevin F.; Tyavanagimatt, Shanthakumar R.; Strasser, Josef; Frimm, Annie; Corrado, Michael L.; Strome, Phoebe G.; Hruby, Dennis E.

CORPORATE SOURCE: SIGA Technologies, Corvallis, OR, USA

SOURCE: Antimicrobial Agents and Chemotherapy (2008), 52(5), 1721-1727

CODEN: AMACCQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal
LANGUAGE: English

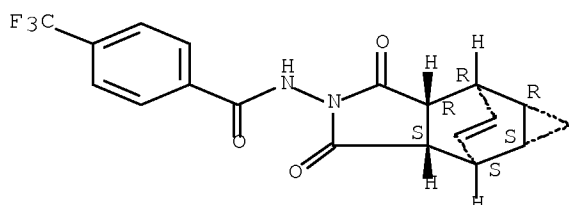
AB ST-246 is a novel, potent orthopoxvirus egress inhibitor that is being developed to treat pathogenic orthopoxvirus infections of humans. This phase I, double-blind, randomized, placebo-controlled single ascending dose study (first time with humans) was conducted to determine the safety, tolerability, and pharmacokinetics of ST-246 in healthy human volunteers. ST-246 was administered in single oral doses of 500, 1000, and 2000 mg to fasting healthy volunteers and 1,000 mg to nonfasting healthy volunteers. ST-246 was generally well tolerated with no serious adverse events, and no subject was withdrawn from the study due to ST-246. The most commonly reported drug-related adverse event was neutropenia, which was found, upon further anal., not to be treatment related. ST-246 was readily absorbed following oral administration with mean times to maximum concentration from 2 h to 3 h. Absorption was greater in nonfasting volunteers than in fasting volunteers. Administration of ST-246 resulted in exposure levels predicted to be sufficient for inhibiting orthopoxvirus replication compared to exposure levels in nonhuman primates in which ST-246 protected animals from lethal orthopoxvirus infection.

IT 869572-92-9, ST-246
RL: ADV (Adverse effect, including toxicity); PKT (Pharmacokinetics); BIOL (Biological study)
(single-dose safety and pharmacokinetics of ST-246, a novel orthopoxvirus egress inhibitor)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD (8 CITINGS)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 17 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:510782 CAPLUS Full-text

DOCUMENT NUMBER: 149:53942

TITLE: Anti-HAV activity of some newly synthesized triazolo[4,3-b]pyridazines

AUTHOR(S): Shamroukh, Ahmed H.; Ali, Mohamed. A.

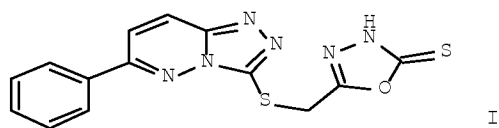
CORPORATE SOURCE: Photochemistry Department, National Research Centre, Cairo, Egypt

SOURCE: Archiv der Pharmazie (Weinheim, Germany) (2008), 341(4), 223-230

CODEN: ARPMAS; ISSN: 0365-6233

PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA

DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 149:53942
 GI

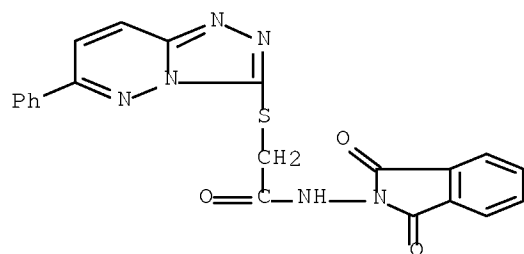


AB 6-Phenyl-[1,2,4]triazolo[4,3-b]pyridazine-3(2H)-thione was used as precursor for the preparation of some novel 3-S-substituted-6-phenyl-[1,2,4]triazolo[4,3-b]pyridazine derivs. Furthermore, the preparation of 1-[2-(6-phenyl-[1,2,4]triazolo[4,3-b]pyridazin-3-ylsulfanyl)acetyl]-1H-pyrazole derivative and 5-(6-phenyl-[1,2,4]triazolo[4,3-b]pyridazin-3-ylsulfanylmethyl)-[1,3,4]oxadiazole derivs. are described. Some of the prepared products revealed a promising antiviral activity against hepatitis-A virus (HAV, MBB-cell culture adapted strain). Plaque reduction infectivity assay was used to determine virus count reduction as a result of treatment with the test compds. Compound I showed the highest effect on HAV compared to the other tested compds.

IT 1033038-31-1P 1033038-35-5P
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation and anti-hepatitis A virus activity of substituted triazolopyridazines)

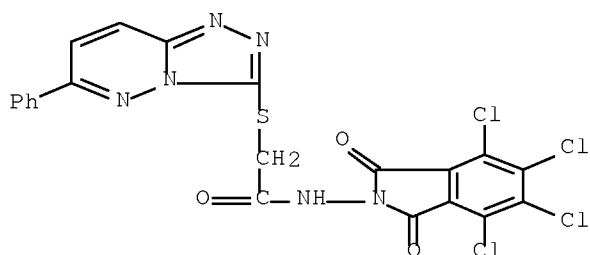
RN 1033038-31-1 CAPLUS

CN Acetamide, N-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-2-[(6-phenyl-1,2,4-triazolo[4,3-b]pyridazin-3-yl)thio]- (CA INDEX NAME)



RN 1033038-35-5 CAPLUS

CN Acetamide, 2-[(6-phenyl-1,2,4-triazolo[4,3-b]pyridazin-3-yl)thio]-N-(4,5,6,7-tetrachloro-1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- (CA INDEX NAME)



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 18 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:352859 CAPLUS Full-text

DOCUMENT NUMBER: 148:394354

TITLE: Compositions and methods for treatment of
viral diseases

INVENTOR(S): Johansen, Lisa M.; Owens, Christopher M.; Mawhinney,
Christina; Chappell, Todd W.; Brown, Alexander T.;
Frank, Michael G.; Altmeyer, Ralf

PATENT ASSIGNEE(S): Combinatorx (Singapore) Pre. Ltd., Singapore

SOURCE: PCT Int. Appl., 237pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|-----------------|------------|
| WO 2008033466 | A2 | 20080320 | WO 2007-US19932 | 20070913 |
| WO 2008033466 | A3 | 20081211 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | |
| RW: | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA | | | |
| US 20080161324 | A1 | 20080703 | US 2007-900893 | 20070913 |
| PRIORITY APPLN. INFO.: | | | US 2006-844463P | P 20060914 |
| | | | US 2006-874061P | P 20061211 |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Based on the results of the authors screen identifying compds. and combinations of compds. having antiviral activity, the present invention features compns., methods, and kits useful in the treatment of viral diseases. In certain embodiments, the viral disease is caused by a single stranded RNA virus, a flaviviridae virus, or a hepatic virus. In particular embodiments,

the viral disease is viral hepatitis (e.g., hepatitis A, hepatitis B, hepatitis C, hepatitis D, hepatitis E). Also featured are screening methods for identification of novel compds. that may be used to treat a viral disease.

IT 869572-92-9, SIGA 246

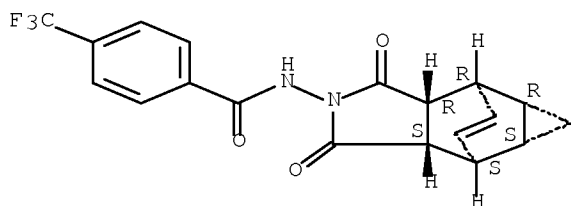
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(compos. and methods for treatment of viral diseases)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel-(CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L9 ANSWER 19 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:140397 CAPLUS Full-text

DOCUMENT NUMBER: 149:264725

TITLE: Immune responses to the smallpox vaccine given in combination with ST-246, a small-molecule inhibitor of poxvirus dissemination

AUTHOR(S): Grosenbach, Douglas W.; Jordan, Robert; King, David S.; Berhanu, Aklile; Warren, Travis K.; Kirkwood-Watts, Dana L.; Tyavanagimatt, Shanthakumar; Tan, Ying; Wilson, Rebecca L.; Jones, Kevin F.; Hruby, Dennis E.

CORPORATE SOURCE: SIGA Technologies, Corvallis, OR, 97333, USA

SOURCE: Vaccine (2008), 26(7), 933-946

CODEN: VACCDE; ISSN: 0264-410X

PUBLISHER: Elsevier Ltd.

DOCUMENT TYPE: Journal

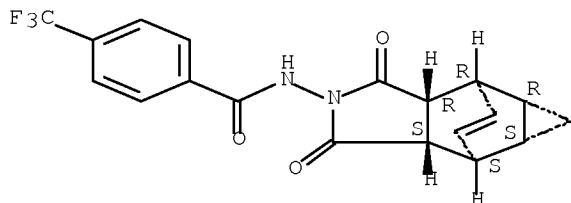
LANGUAGE: English

AB Summary: The re-emerging threat of smallpox and the emerging threat of monkeypox highlight the need for effective poxvirus countermeasures. Currently approved smallpox vaccines have unacceptable safety profiles and, consequently, the general populace is no longer vaccinated, leading to an increasingly susceptible population. ST-246, a small-mol. inhibitor of poxvirus dissemination, has been demonstrated in various animal models to be safe and effective in preventing poxviral disease. This suggests that it may also be used to improve the safety of the traditional smallpox vaccine provided that it does not inhibit vaccine-induced protective immunity. In this study, we compared the immune responses elicited by the smallpox vaccine alone or in combination with ST-246 in mice. Normal lesion formation following dermal scarification with the attenuated New York City Board of Health strain (Dryvax), commonly referred to as a vaccine "take", was not inhibited although severe lesions and systemic disease due to vaccination with

the virulent Western Reserve (VV-WR) strain were prevented. The vaccine given with ST-246 did not affect cellular immune responses or neutralizing antibody titers although anti-vaccinia ELISA titers were slightly reduced. Vaccination in combination with ST-246 provided equivalent short- and long-term protection against lethal intranasal challenge with VV-WR when compared to vaccine alone. These results suggest that ST-246 does not compromise protective immunity elicited by the vaccine and provide the basis for future studies examining the efficacy of ST-246 in preventing or treating adverse events due to vaccination.

IT 869572-92-9, ST-246
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (immune responses to smallpox vaccine given in combination with ST-246)
 RN 869572-92-9 CAPLUS
 CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel-
 (CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD
 (5 CITINGS)
 REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 20 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2008:127889 CAPLUS Full-text
 DOCUMENT NUMBER: 148:206598
 TITLE: N-alkyl substituted piperazinylmethylquinazolinones
 and azepanylmethylquinazolinones for the treatment of
 cancer
 INVENTOR(S): Pierce, Michael; Qi, Longwu; Robbins, Paul B.;
 Sahasrabudhe, Sudhir R.; Selliah, Robert; Venkat, Raj
 Gopal
 PATENT ASSIGNEE(S): Prolexys Pharmaceuticals, Inc., USA
 SOURCE: PCT Int. Appl., 85 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|-----------------|----------|
| WO 2008013987 | A2 | 20080131 | WO 2007-US16996 | 20070727 |
| WO 2008013987 | A3 | 20081030 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI,
 GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG,

KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL,
PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: US 2006-834027P P 20060727

OTHER SOURCE(S): MARPAT 148:206598

AB The Title compds. (Markush included) are useful e.g. in the effective killing or reduction in rate of proliferation of cancer cells, such as in patients suffering from cancer. In addition to the compds. themselves, the invention provides pharmaceutical compns. of the compds., and a method of treatment using the compds.

IT 151069-12-4, NB-506

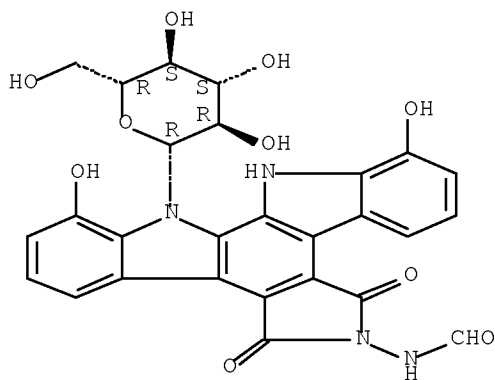
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(N-alkyl substituted piperazinylmethylquinazolinones and azepanylmethylquinazolinones for treatment of cancer, and use with other agents)

RN 151069-12-4 CAPLUS

CN Formamide, N-(12- β -D-glucopyranosyl-5,7,12,13-tetrahydro-1,11-dihydroxy-5,7-dioxo-6H-indolo[2,3-a]pyrrolo[3,4-c]carbazol-6-yl)- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L9 ANSWER 21 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:105893 CAPLUS Full-text

DOCUMENT NUMBER: 148:345830

TITLE: Activity of the anti-orthopoxvirus compound ST-246 against vaccinia, cowpox and camelpox viruses in cell monolayers and organotypic raft cultures

AUTHOR(S): Duraffour, Sophie; Snoeck, Robert; de Vos, Rita; van den Oord, Joost J.; Crance, Jean-Marc; Garin, Daniel; Hruby, Dennis E.; Jordan, Robert; De Clercq, Erik; Andrei, Graciela

CORPORATE SOURCE: Rega Institute For Medical Research, Louvain, Belg.

SOURCE: Antiviral Therapy (2007), 12(8), 1205-1216
CODEN: ANTHFA; ISSN: 1359-6535
PUBLISHER: International Medical Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The potential use of variola virus as a biol. weapon has renewed efforts in the development of antiviral agents against orthopoxviruses. ST-246 [4-trifluoromethyl-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-di oxo-4,6-ethenocycloprop [f]isoindol-2(1H)-yl)-benzamide] is an anti-orthopoxvirus compound active against several orthopoxviruses including vaccinia virus (VV), cowpox virus (CPV), camelpox virus (CMLV), ectromelia virus (ECTV), and variola virus in cell culture. The compound has been shown to inhibit the release of extra-cellular virus by targeting the F13L W protein and to protect mice from VV, CPV, and ECTV orthopoxvirus-induced disease. The antiviral activity of ST-246 was assessed against extracellular and intracellular VV, CPV, and CMLV production in human embryonic lung (HEL) fibroblasts and primary human keratinocyte (PHK) cell monolayers, as well as in three-dimensional raft cultures. ST-246 inhibited preferentially the production of extracellular virus compared with intracellular virus production in HEL and PHK cells (for VV) and in PHK cells (for CMLV). In organotypic epithelial raft cultures, ST-246 at 20 µg/mL inhibited extracellular VV and CMLV production by 6 logs, whereas intracellular virus yield was reduced by 2 logs. In the case of CPV, both extracellular and intracellular virus production were completely inhibited by ST-246 at 20 µg/mL. Histol. sections of the infected rafts, treated with increasing amts. of drug, confirmed the antiviral activity of ST-246: the epithelium was protected and there was no evidence of viral infection. Electron microscopic examination confirmed the absence of intracellular enveloped virus forms in VV-, CPV-, and CMLV-infected cells treated with 10 µg/mL of ST-246. These data indicate that ST-246 is a potent anti-orthopoxvirus compound; the mode of inhibition is dependent on the virus and cell type.

IT 869572-92-9, ST-246

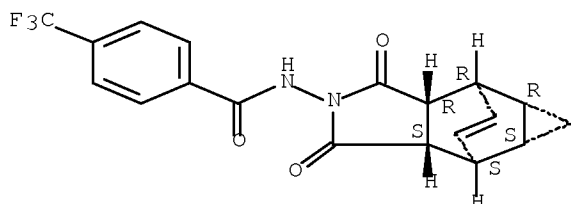
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ST-246 exhibited antiviral activity, inhibited extracellular and intracellular production of vaccinia, cowpox or camelpox virus in human embryonic lung fibroblast and primary keratinocyte monolayer, organotypic epithelial raft culture)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS RECORD (10 CITINGS)

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 22 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2008:9028 CAPLUS Full-text

DOCUMENT NUMBER: 148:121578

TITLE: Process for preparation of isoindole derivatives for treatment and prevention of orthopoxvirus infections

INVENTOR(S): Jordan, Robert F.; Bailey, Thomas R.; Rippin, Susan R.; Dai, Dongcheng

PATENT ASSIGNEE(S): Siga Technologies, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 25pp., Cont.-in-part of U.S. Ser. No. 561,153.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----------------|------|----------|-----------------|----------|
| US 20080004452 | A1 | 20080103 | US 2007-785997 | 20070423 |
| WO 2004112718 | A2 | 20041229 | WO 2004-US19552 | 20040618 |
| WO 2004112718 | A3 | 20050407 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

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| | | | | |
|----------------|----|----------|-----------------|----------|
| US 20060235051 | A1 | 20061019 | US 2006-561153 | 20060405 |
| US 20080103181 | A9 | 20080501 | | |
| CA 2685198 | A1 | 20080703 | CA 2007-2685198 | 20070423 |
| WO 2008079159 | A2 | 20080703 | WO 2007-US9750 | 20070423 |
| WO 2008079159 | A3 | 20081009 | | |

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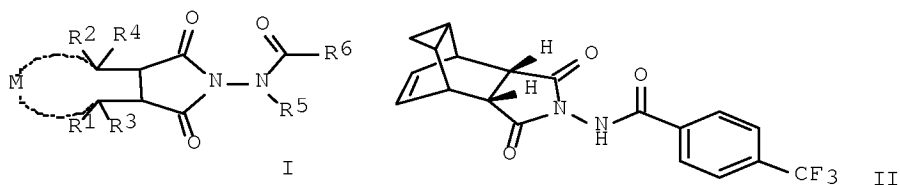
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: US 2003-480182P P 20030620
 WO 2004-US19552 W 20040618
 US 2006-561153 A2 20060405
 WO 2007-US9750 W 20070423

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): CASREACT 148:121578; MARPAT 148:121578

GI



AB This invention provides a process for the preparation of isoindole derivs. I [wherein R1, R2, and R5 = independently H or alkyl; R3 and R4 = independently H, alkyl; or R3 and R4 together with the carbons to which they are attached form an (un)substituted cyclic structure; R6 = (un)substituted alkyl, cycloalkyl, alkenyl, alkynyl, aryl, etc.; M = (un)substituted -CH₂CH₂- or -CH=CH-] or pharmaceutically acceptable salts thereof for the treatment or prophylaxis of viral infections and diseases associated therewith, particularly caused by the orthopoxvirus. For example, cycloheptatriene was reacted with maleic anhydride, followed by the addition of 4-(trifluoromethyl)benzhydrazide to give II. II exhibited inhibitory activity against vaccinia virus-induced CPE with EC₅₀ value of $\leq 0.5 \mu\text{M}$. Formulations containing II as an active ingredient were also disclosed in the invention.

IT 959923-09-2P 959923-10-5P 959923-11-6P
 959923-12-7P 959923-13-8P 959923-14-9P
 959923-15-0P 959923-16-1P 959923-17-2P
 959923-18-3P 959923-19-4P

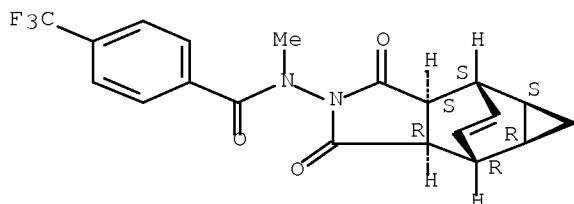
RL: PAC (Pharmacological activity); PRPH (Prophetic); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of isoindole derivs. for treatment and prevention of orthopoxvirus infections)

RN 959923-09-2 CAPLUS

CN Benzamide, N-methyl-N-[(3aR, 4R, 4aR, 5aS, 6S, 6aS)-3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

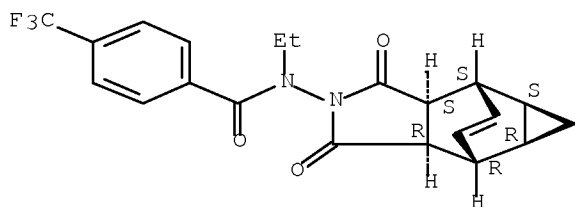
Relative stereochemistry.



RN 959923-10-5 CAPLUS

CN Benzamide, N-ethyl-N-[(3aR, 4R, 4aR, 5aS, 6S, 6aS)-3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

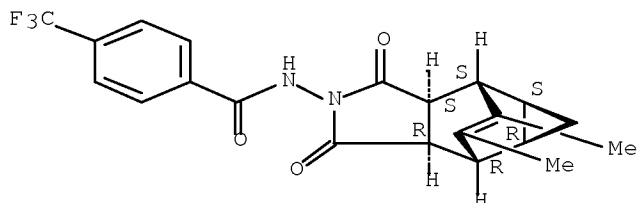
Relative stereochemistry.



RN 959923-11-6 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-7,8-dimethyl-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

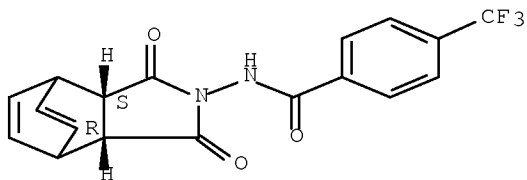
Relative stereochemistry.



RN 959923-12-7 CAPLUS

CN Benzamide, N-[(3aR,7aS)-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-etheno-2H-isoindol-2-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

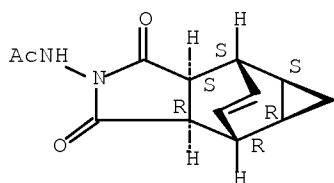
Relative stereochemistry.



RN 959923-13-8 CAPLUS

CN Acetamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

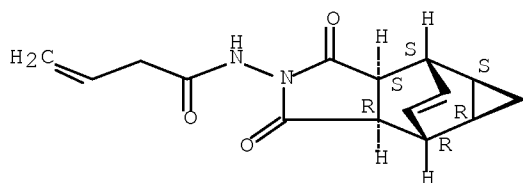
Relative stereochemistry.



RN 959923-14-9 CAPLUS

CN 3-Butenamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

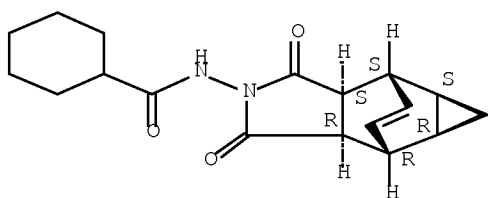
Relative stereochemistry.



RN 959923-15-0 CAPLUS

CN Cyclohexanecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

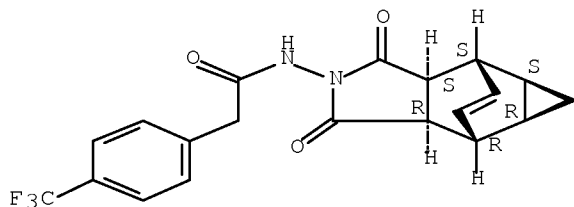
Relative stereochemistry.



RN 959923-16-1 CAPLUS

CN Benzeneacetamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

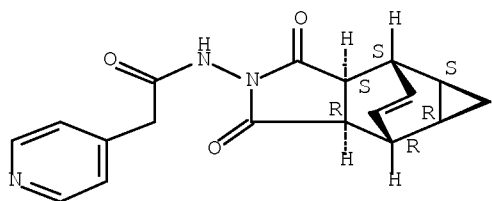
Relative stereochemistry.



RN 959923-17-2 CAPLUS

CN 4-Pyridineacetamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

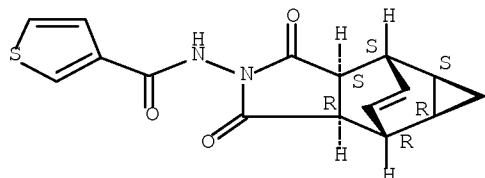
Relative stereochemistry.



RN 959923-18-3 CAPLUS

CN 3-Thiophenecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

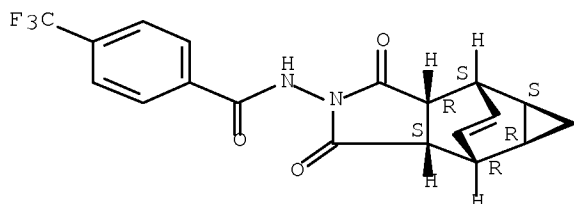
Relative stereochemistry.



RN 959923-19-4 CAPLUS

CN Benzamide, N-[(3aR,4S,4aS,5aR,6R,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



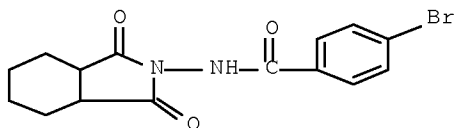
| | | | |
|----|--------------|--------------|--------------|
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| | 935766-03-3P | 935766-04-4P | 935766-05-5P |
| | 935766-06-6P | 935766-07-7P | 935766-09-9P |
| | 945962-36-7P | 959922-75-9P | 959922-76-0P |
| | 959922-77-1P | 959922-79-3P | 959922-82-8P |
| | 959922-85-1P | 959922-88-4P | 959922-95-3P |
| | 959922-98-6P | 959923-00-3P | 959923-03-6P |
| | 959923-05-8P | 959923-06-9P | 959923-07-0P |
| | 959923-08-1P | 959923-20-7P | |

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of isoindole derivs. for treatment and prevention of orthopoxvirus infections)

RN 816458-39-6 CAPLUS

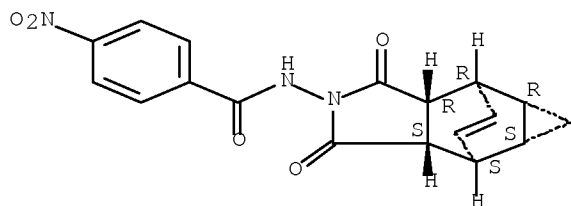
CN Benzamide, 4-bromo-N-(octahydro-1,3-dioxo-2H-isoindol-2-yl)- (CA INDEX NAME)



RN 935765-96-1 CAPLUS

CN Benzamide, 4-nitro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

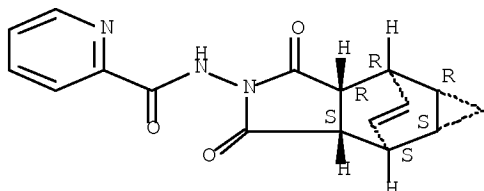
Relative stereochemistry.



RN 935765-99-4 CAPLUS

CN 2-Pyridinecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

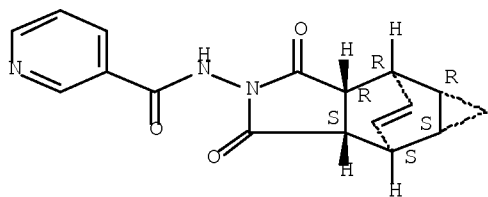
Relative stereochemistry.



RN 935766-00-0 CAPLUS

CN 3-Pyridinecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

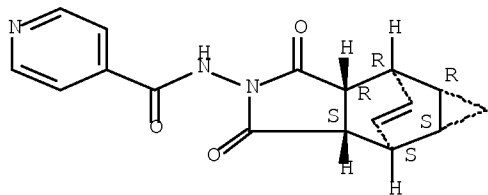
Relative stereochemistry.



RN 935766-01-1 CAPLUS

CN 4-Pyridinecarboxamide, N-[(3aR, 4R, 4aR, 5aS, 6S, 6aS)-3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

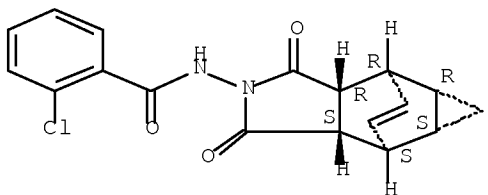
Relative stereochemistry.



RN 935766-02-2 CAPLUS

CN Benzamide, 2-chloro-N-[(3aR, 4R, 4aR, 5aS, 6S, 6aS)-3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

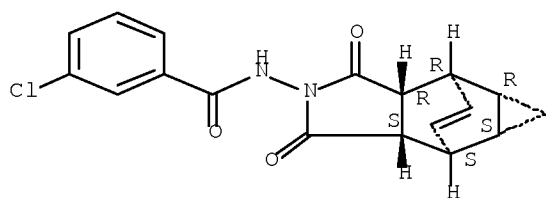
Relative stereochemistry.



RN 935766-03-3 CAPLUS

CN Benzamide, 3-chloro-N-[(3aR, 4R, 4aR, 5aS, 6S, 6aS)-3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

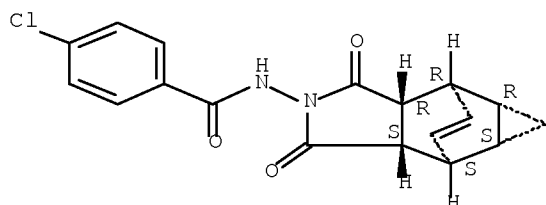
Relative stereochemistry.



RN 935766-04-4 CAPLUS

CN Benzamide, 4-chloro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

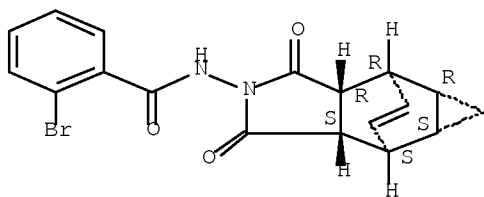
Relative stereochemistry.



RN 935766-05-5 CAPLUS

CN Benzamide, 2-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

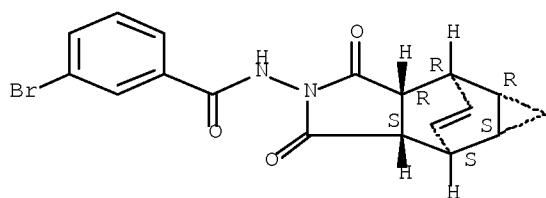
Relative stereochemistry.



RN 935766-06-6 CAPLUS

CN Benzamide, 3-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

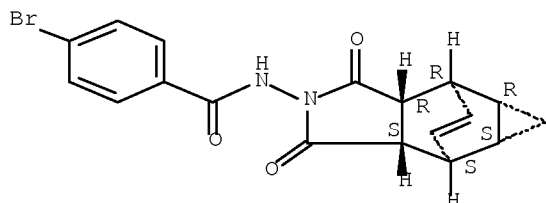
Relative stereochemistry.



RN 935766-07-7 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

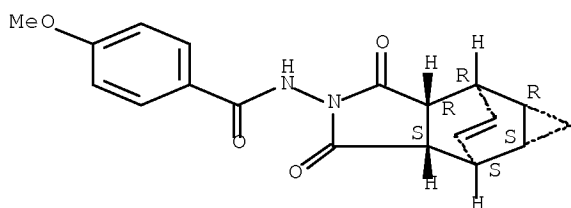
Relative stereochemistry.



RN 935766-09-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-methoxy-, rel- (CA INDEX NAME)

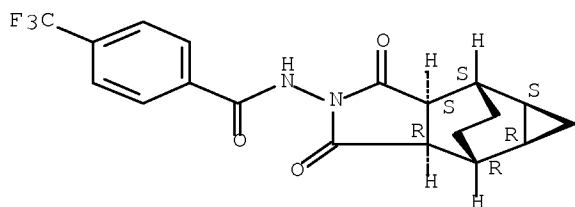
Relative stereochemistry.



RN 945962-36-7 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-octahydro-1,3-dioxo-4,6-ethanocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

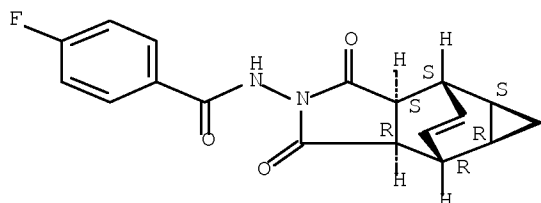
Relative stereochemistry.



RN 959922-75-9 CAPLUS

CN Benzamide, 4-fluoro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

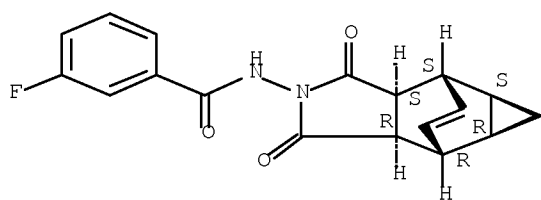
Relative stereochemistry.



RN 959922-76-0 CAPLUS

CN Benzamide, 3-fluoro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

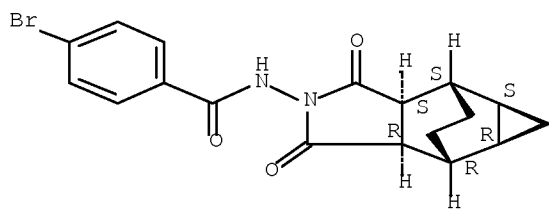
Relative stereochemistry.



RN 959922-77-1 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-octahydro-1,3-dioxo-4,6-ethanocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

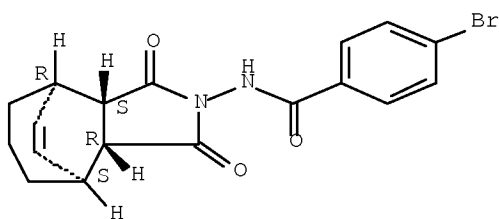
Relative stereochemistry.



RN 959922-79-3 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4S,8R,8aS)-3,3a,4,5,6,7,8,8a-octahydro-1,3-dioxo-4,8-ethenocyclohepta[c]pyrrol-2(1H)-yl]-, rel- (CA INDEX NAME)

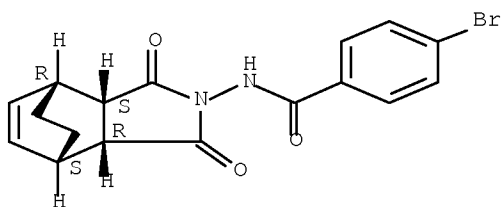
Relative stereochemistry.



RN 959922-82-8 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4S,7R,7aS)-1,3,3a,4,5,6,7,7a-octahydro-1,3-dioxo-4,7-etheno-2H-isoindol-2-yl]-, rel- (CA INDEX NAME)

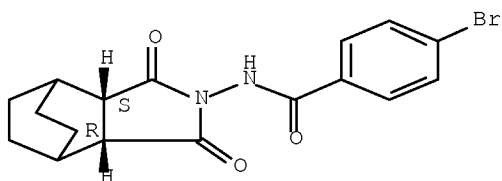
Relative stereochemistry.



RN 959922-85-1 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,7aS)-octahydro-1,3-dioxo-4,7-ethano-2H-isoindol-2-yl]-, rel- (CA INDEX NAME)

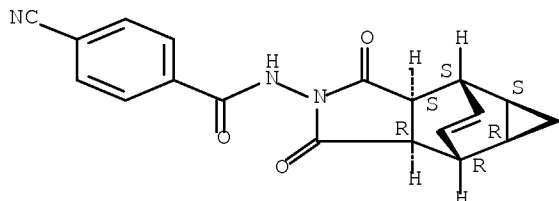
Relative stereochemistry.



RN 959922-88-4 CAPLUS

CN Benzamide, 4-cyano-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

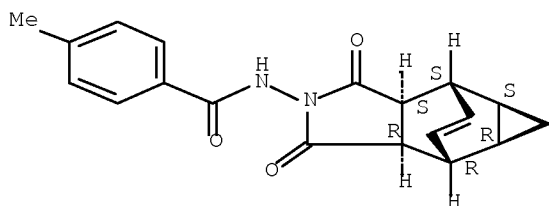
Relative stereochemistry.



RN 959922-95-3 CAPLUS

CN Benzamide, 4-methyl-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

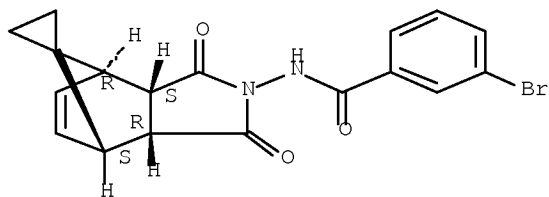
Relative stereochemistry.



RN 959922-98-6 CAPLUS

CN Benzamide, 3-bromo-N-[(3'aR,4'S,7'R,7'aS)-1',3',3',4',7',7'a-hexahydro-1',3'-dioxospiro[cyclopropane-1,8'-[4,7]methano[2H]isoindol]-2'-yl]-, rel- (CA INDEX NAME)

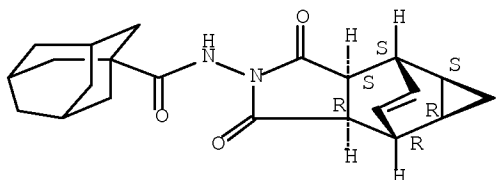
Relative stereochemistry.



RN 959923-00-3 CAPLUS

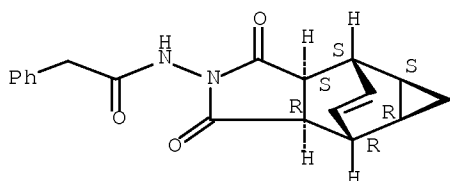
CN Tricyclo[3.3.1.1^{3,7}]decane-1-carboxamide,
 N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-
 ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



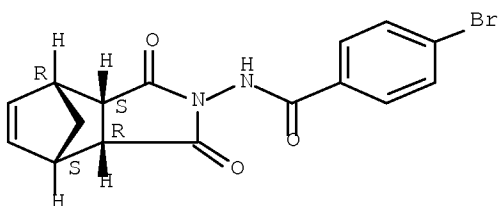
RN 959923-03-6 CAPLUS
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Relative stereochemistry.



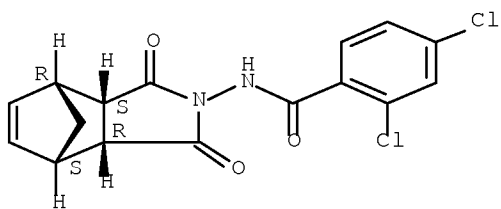
RN 959923-05-8 CAPLUS
 CN Benzamide, 4-bromo-N-[(3aR,4S,7R,7aS)-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-methano-2H-isoindol-2-yl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



RN 959923-06-9 CAPLUS
 CN Benzamide, 2,4-dichloro-N-[(3aR,4S,7R,7aS)-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-methano-2H-isoindol-2-yl]-, rel- (CA INDEX NAME)

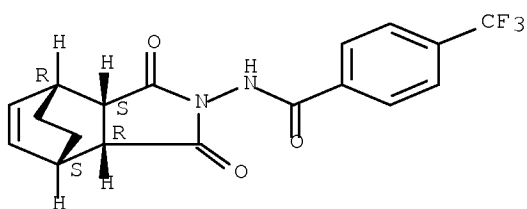
Relative stereochemistry.



RN 959923-07-0 CAPLUS

CN Benzamide, N-[(3aR,4S,7R,7aS)-1,3,3a,4,5,6,7,7a-octahydro-1,3-dioxo-4,7-etheno-2H-isoindol-2-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

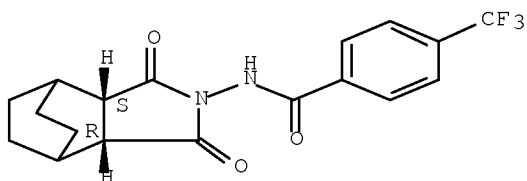
Relative stereochemistry.



RN 959923-08-1 CAPLUS

CN Benzamide, N-[(3aR,7aS)-octahydro-1,3-dioxo-4,7-ethano-2H-isoindol-2-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

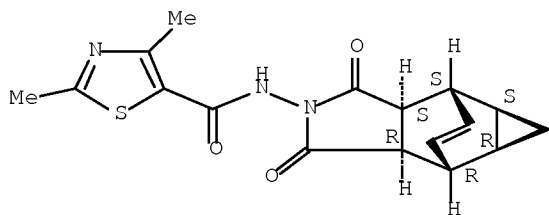
Relative stereochemistry.



RN 959923-20-7 CAPLUS

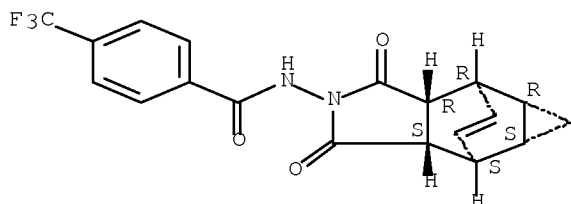
CN 5-Thiazolecarboxamide, 2,4-dimethyl-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



IT 869572-92-9P
 RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (preparation of isoindole derivs. for treatment and prevention of orthopoxvirus infections)
 RN 869572-92-9 CAPLUS
 CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 23 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2007:1415989 CAPLUS [Full-text](#)
 DOCUMENT NUMBER: 148:54877
 TITLE: Preparation of isoindole derivatives for treatment and prevention of orthopoxvirus infections
 INVENTOR(S): Jordan, Robert F.; Bailey, Thomas R.; Rippin, Susan R.; Dai, Dongcheng
 PATENT ASSIGNEE(S): Siga Technologies, Inc., USA
 SOURCE: U.S. Pat. Appl. Publ., 26 pp., Cont.-in-part of U.S. Ser. No. 561,153.
 CODEN: USXXCO
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----------------|------|----------|-----------------|----------|
| US 20070287735 | A1 | 20071213 | US 2007-785998 | 20070423 |
| WO 2004112718 | A2 | 20041229 | WO 2004-US19552 | 20040618 |
| WO 2004112718 | A3 | 20050407 | | |

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US 20060235051 A1 20061019 US 2006-561153 20060405
 US 20080103181 A9 20080501
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AU 2007351866 A1 20081030 AU 2007-351866 20070423
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EP 2148860 A1 20100203 EP 2007-755857 20070423

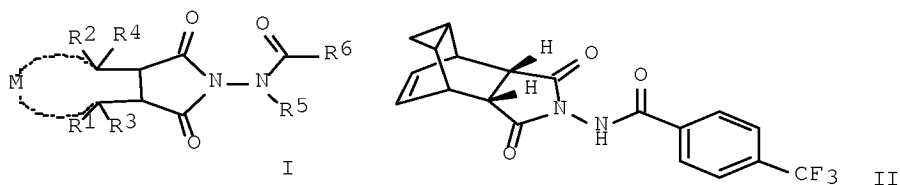
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PRIORITY APPLN. INFO.: US 2003-480182P P 20030620
 WO 2004-US19552 W 20040618
 US 2006-561153 A2 20060405
 US 2007-785998 A 20070423
 WO 2007-US9750 W 20070423
 WO 2007-US9751 W 20070423

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): CASREACT 148:54877; MARPAT 148:54877

GI



AB The title compds. with general formula I [wherein R1, R2, and R5 = independently H or alkyl; R3 and R4 = independently H, alkyl, or R3 and R4 together with the carbons to which they are attached form an (un)substituted cyclic structure; R6 = (un)substituted alkyl, cycloalkyl, alkenyl, alkynyl, aryl, etc.; M = (un)substituted -CH₂CH₂- or -CH=CH-] or pharmaceutically acceptable salts thereof were prepared for the treatment or prophylaxis of viral infections and diseases associated therewith, particularly those viral infections and associated diseases caused by the orthopoxvirus. For example, compound II was prepared in a multi-step synthesis. II exhibited inhibitory activity against vaccinia virus-induced CPE with EC₅₀ value of $\leq 0.5 \mu\text{M}$. Formulations containing II as an active ingredient were also disclosed in the invention.

IT 959923-09-2P 959923-10-5P 959923-11-6P
 959923-12-7P 959923-13-8P 959923-14-9P
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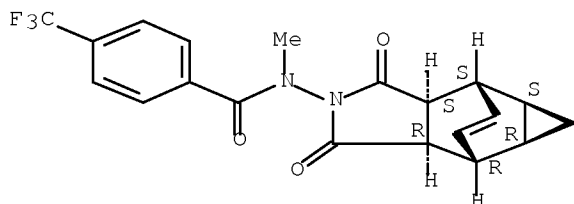
RL: PAC (Pharmacological activity); PRPH (Prophetic); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of isoindole derivs. for treatment and prevention of orthopoxvirus infections)

RN 959923-09-2 CAPLUS

CN Benzamide, N-methyl-N-[(3aR, 4R, 4aR, 5aS, 6S, 6aS)-3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

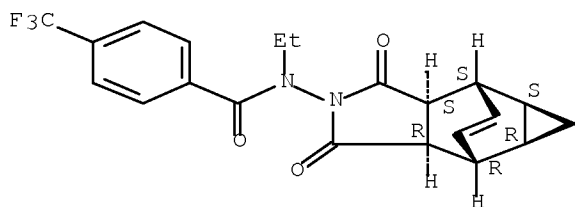
Relative stereochemistry.



RN 959923-10-5 CAPLUS

CN Benzamide, N-ethyl-N-[(3aR, 4R, 4aR, 5aS, 6S, 6aS)-3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

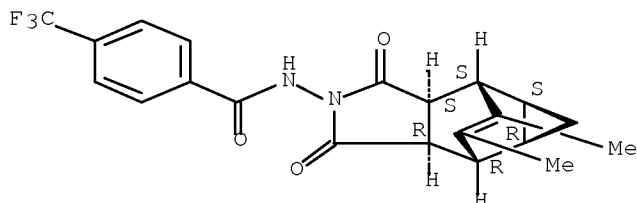
Relative stereochemistry.



RN 959923-11-6 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-7,8-dimethyl-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

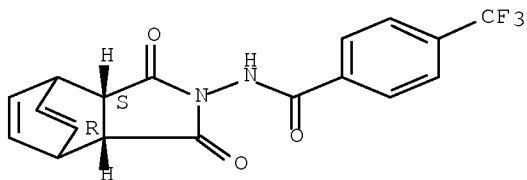
Relative stereochemistry.



RN 959923-12-7 CAPLUS

CN Benzamide, N-[(3aR,7aS)-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-etheno-2H-isoindol-2-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

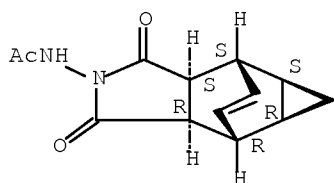
Relative stereochemistry.



RN 959923-13-8 CAPLUS

CN Acetamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

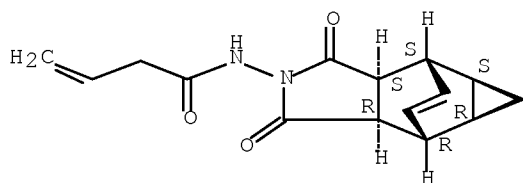
Relative stereochemistry.



RN 959923-14-9 CAPLUS

CN 3-Butenamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

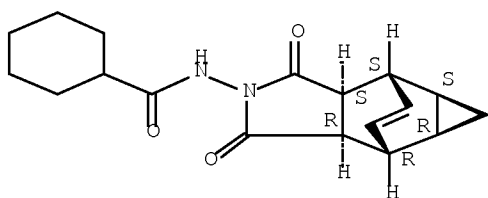
Relative stereochemistry.



RN 959923-15-0 CAPLUS

CN Cyclohexanecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

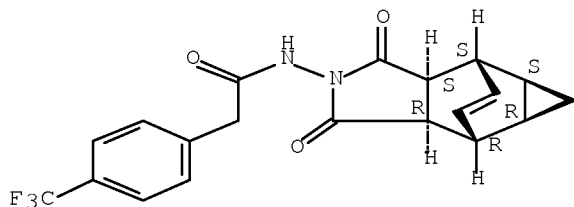
Relative stereochemistry.



RN 959923-16-1 CAPLUS

CN Benzeneacetamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

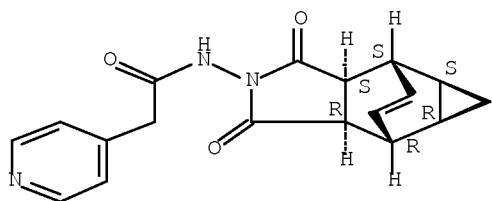
Relative stereochemistry.



RN 959923-17-2 CAPLUS

CN 4-Pyridineacetamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

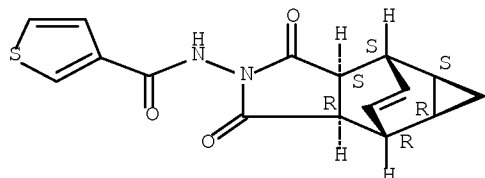
Relative stereochemistry.



RN 959923-18-3 CAPLUS

CN 3-Thiophenecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

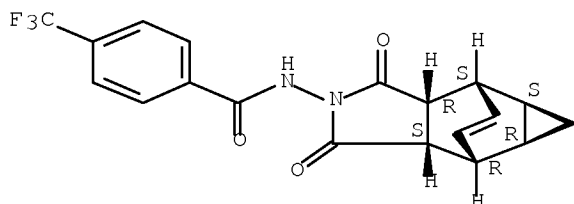
Relative stereochemistry.



RN 959923-19-4 CAPLUS

CN Benzamide, N-[(3aR,4S,4aS,5aR,6R,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

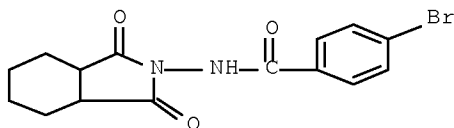
Relative stereochemistry.



| | | | |
|----|--------------|--------------|--------------|
| IT | 816458-39-6P | 935765-96-1P | 935765-99-4P |
| | 935766-00-0P | 935766-01-1P | 935766-02-2P |
| | 935766-03-3P | 935766-04-4P | 935766-05-5P |
| | 935766-06-6P | 935766-07-7P | 935766-09-9P |
| | 945962-36-7P | 959922-75-9P | 959922-76-0P |
| | 959922-77-1P | 959922-79-3P | 959922-82-8P |
| | 959922-85-1P | 959922-88-4P | 959922-95-3P |
| | 959922-98-6P | 959923-00-3P | 959923-03-6P |
| | 959923-05-8P | 959923-06-9P | 959923-07-0P |
| | 959923-08-1P | 959923-20-7P | |

(drug candidate; preparation of isoindole derivs. for treatment and prevention of orthopoxvirus infections)

CN Benzamide, 4-bromo-N-(octahydro-1,3-dioxo-2H-isoindol-2-yl)- (CA INDEX
NAME)



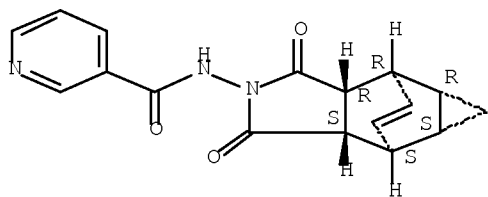
| | | |
|----|---|-----|
| CN | Benzamide, 4-nitro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- | (CA |
| | INDEX NAME) | |

CN 2-Pyridinecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

The chemical structure shows a pyridine ring connected via a carbonyl group to a bicyclic system. The bicyclic system consists of a six-membered ring fused to a five-membered ring. The six-membered ring has a carbonyl group and a nitrogen atom. The five-membered ring has a carbonyl group and a nitrogen atom. The structure is labeled with 'R' and 'S' stereochemistry at various positions.

CN 3-Pyridinecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

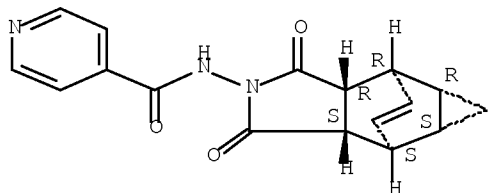
Relative stereochemistry.



RN 935766-01-1 CAPLUS

CN 4-Pyridinecarboxamide, N-[(3aR, 4R, 4aR, 5aS, 6S, 6aS)-3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

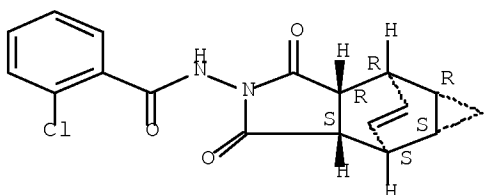
Relative stereochemistry.



RN 935766-02-2 CAPLUS

CN Benzamide, 2-chloro-N-[(3aR, 4R, 4aR, 5aS, 6S, 6aS)-3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

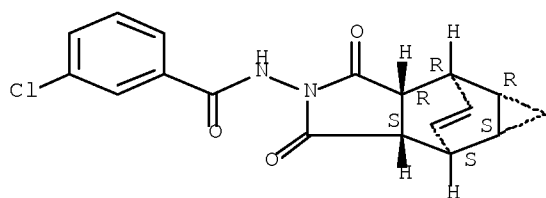
Relative stereochemistry.



RN 935766-03-3 CAPLUS

CN Benzamide, 3-chloro-N-[(3aR, 4R, 4aR, 5aS, 6S, 6aS)-3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

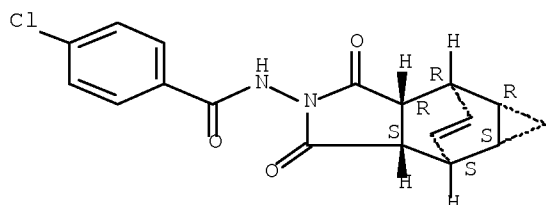
Relative stereochemistry.



RN 935766-04-4 CAPLUS

CN Benzamide, 4-chloro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

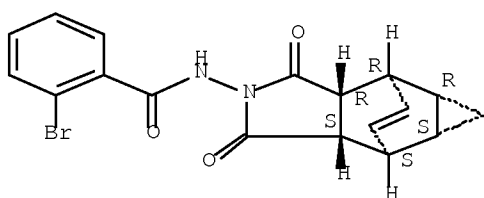
Relative stereochemistry.



RN 935766-05-5 CAPLUS

CN Benzamide, 2-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

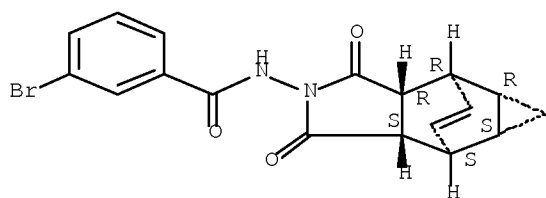
Relative stereochemistry.



RN 935766-06-6 CAPLUS

CN Benzamide, 3-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

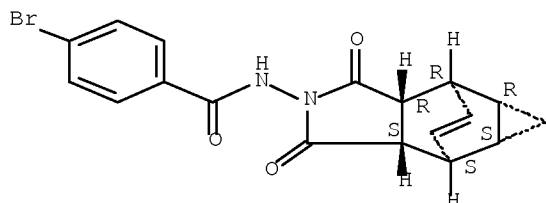
Relative stereochemistry.



RN 935766-07-7 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

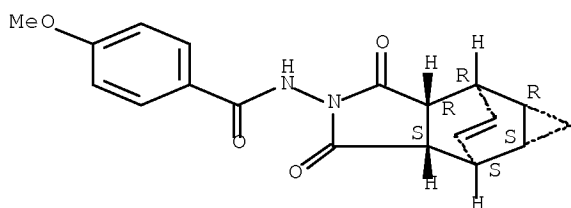
Relative stereochemistry.



RN 935766-09-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-methoxy-, rel- (CA INDEX NAME)

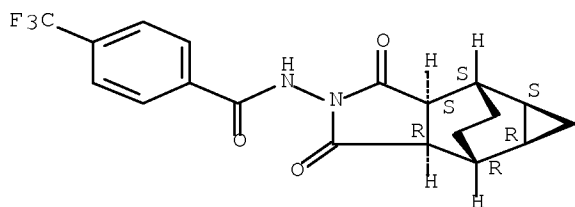
Relative stereochemistry.



RN 945962-36-7 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-octahydro-1,3-dioxo-4,6-ethanocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

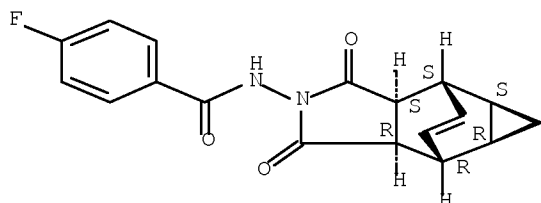
Relative stereochemistry.



RN 959922-75-9 CAPLUS

CN Benzamide, 4-fluoro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

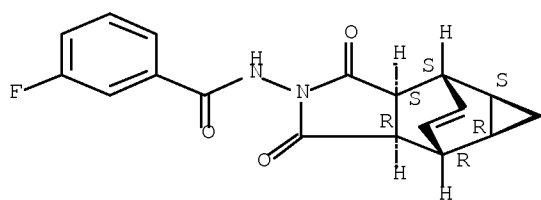
Relative stereochemistry.



RN 959922-76-0 CAPLUS

CN Benzamide, 3-fluoro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

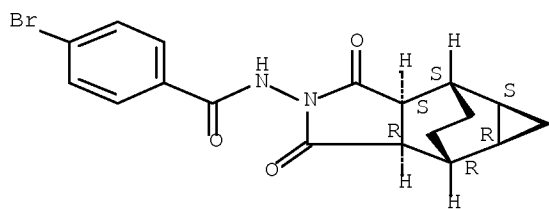
Relative stereochemistry.



RN 959922-77-1 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

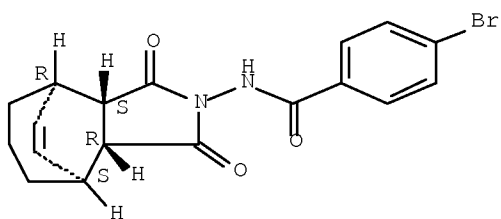
Relative stereochemistry.



RN 959922-79-3 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4S,8R,8aS)-3,3a,4,5,6,7,8,8a-octahydro-1,3-dioxo-4,8-ethenocyclohepta[c]pyrrol-2(1H)-yl]-, rel- (CA INDEX NAME)

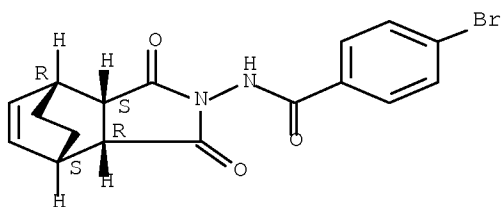
Relative stereochemistry.



RN 959922-82-8 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4S,7R,7aS)-1,3,3a,4,5,6,7,7a-octahydro-1,3-dioxo-4,7-etheno-2H-isoindol-2-yl]-, rel- (CA INDEX NAME)

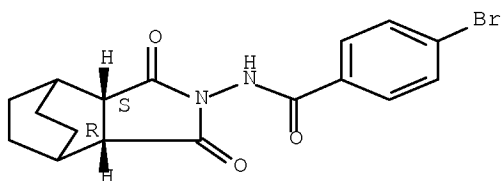
Relative stereochemistry.



RN 959922-85-1 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,7aS)-octahydro-1,3-dioxo-4,7-ethano-2H-isoindol-2-yl]-, rel- (CA INDEX NAME)

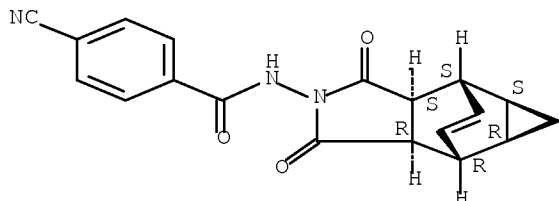
Relative stereochemistry.



RN 959922-88-4 CAPLUS

CN Benzamide, 4-cyano-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

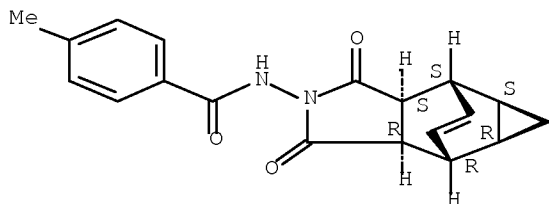
Relative stereochemistry.



RN 959922-95-3 CAPLUS

CN Benzamide, 4-methyl-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

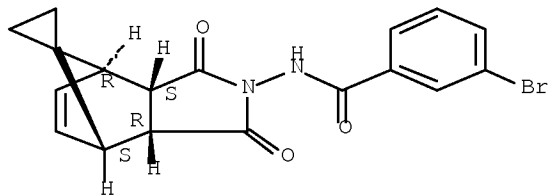
Relative stereochemistry.



RN 959922-98-6 CAPLUS

CN Benzamide, 3-bromo-N-[(3'aR,4'S,7'R,7'aS)-1',3',3',4',7',7'a-hexahydro-1',3'-dioxospiro[cyclopropane-1,8'-[4,7]methano[2H]isoindol]-2'-yl]-, rel- (CA INDEX NAME)

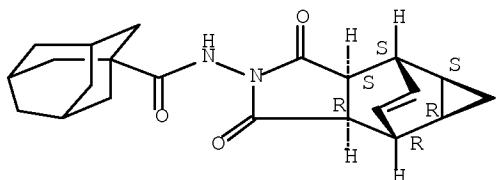
Relative stereochemistry.



RN 959923-00-3 CAPLUS

CN Tricyclo[3.3.1.1^{3,7}]decane-1-carboxamide,
N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

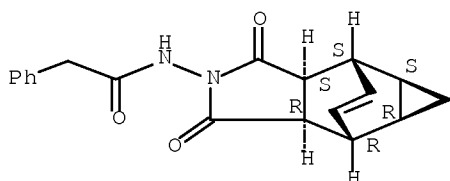
Relative stereochemistry.



RN 959923-03-6 CAPLUS

CN Benzeneacetamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

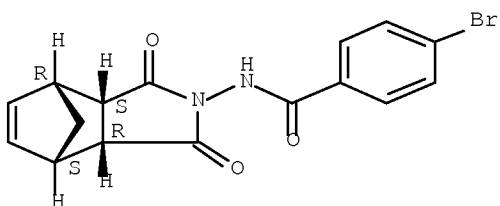
Relative stereochemistry.



RN 959923-05-8 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4S,7R,7aS)-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-methano-2H-isoindol-2-yl]-, rel- (CA INDEX NAME)

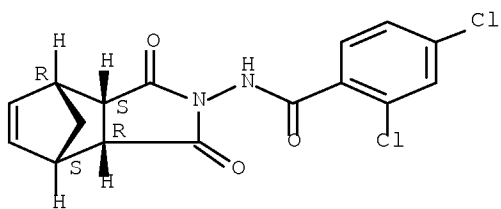
Relative stereochemistry.



RN 959923-06-9 CAPLUS

CN Benzamide, 2,4-dichloro-N-[(3aR,4S,7R,7aS)-1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-methano-2H-isoindol-2-yl]-, rel- (CA INDEX NAME)

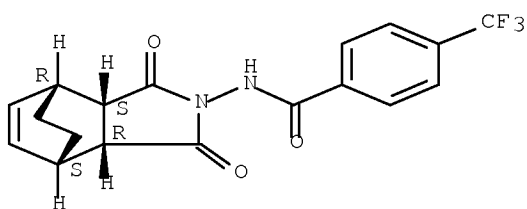
Relative stereochemistry.



RN 959923-07-0 CAPLUS

CN Benzamide, N-[(3aR,4S,7R,7aS)-1,3,3a,4,5,6,7,7a-octahydro-1,3-dioxo-4,7-etheno-2H-isoindol-2-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

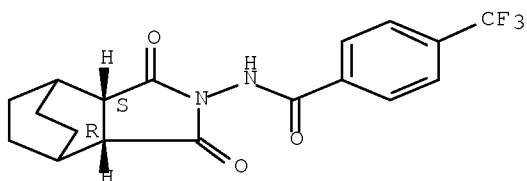
Relative stereochemistry.



RN 959923-08-1 CAPLUS

CN Benzamide, N-[(3aR,7aS)-octahydro-1,3-dioxo-4,7-ethano-2H-isoindol-2-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

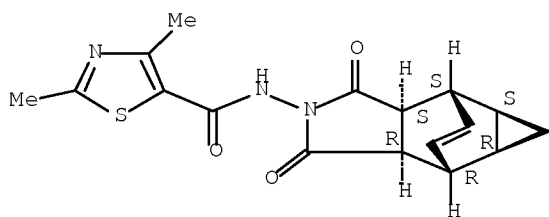
Relative stereochemistry.



RN 959923-20-7 CAPLUS

CN 5-Thiazolecarboxamide, 2,4-dimethyl-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



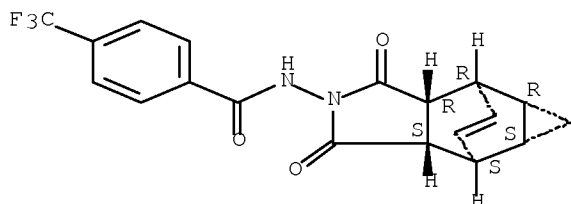
IT 869572-92-9P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of isoindole derivs. for treatment and prevention of orthopoxvirus infections)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 24 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:1283641 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 148:69143

TITLE: Synergistic efficacy of the combination of ST-246 with CMX001 against orthopoxviruses

AUTHOR(S): Quenelle, Debra C.; Prichard, Mark N.; Keith, Kathy A.; Hruby, Dennis E.; Jordan, Robert; Painter, George R.; Robertson, Alice; Kern, Earl R.

CORPORATE SOURCE: University of Alabama School of Medicine, Birmingham, AL, USA

SOURCE: Antimicrobial Agents and Chemotherapy (2007), 51(11), 4118-4124

CODEN: AMACCQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The combination of ST-246 and hexadecyloxypropyl-cidofovir or CMX001 was evaluated for synergistic activity in vitro against vaccinia virus and cowpox virus (CV) and in vivo against CV. In cell culture the combination was highly synergistic against both viruses, and the results suggested that combined treatment with these agents might offer superior efficacy in vivo. For animal models, ST-246 was administered orally with or without CMX001 to mice lethally infected with CV. Treatments began 1, 3, or 6 days postinfection using lower

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IT      869572-92-9
        RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
        (Biological study); USES (Uses)
        (ST 246; synergistic efficacy of the combination of ST-246 with CMX001
        against orthopoxviruses)
RN      869572-92-9  CAPLUS
CN      Benzamide, N-[ (3aR, 4R, 4aR, 5aS, 6S, 6aS) -3, 3a, 4, 4a, 5, 5a, 6, 6a-octahydro-1, 3-
        dioxo-4, 6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel-
        (CA INDEX NAME)

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L9 ANSWER 25 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2007:1179956 CAPLUS Full-text
DOCUMENT NUMBER: 148:68745
TITLE: The design and development of drugs acting against the
smallpox virus
AUTHOR(S): El Omari, Kamel; Stammers, David K.
CORPORATE SOURCE: Division of Structural Biology, The Wellcome Trust
Centre for Human Genetics, University of Oxford,
Oxford, OX3 7BN, UK
SOURCE: Expert Opinion on Drug Discovery (2007), 2(9),
1263-1272
CODEN: EODDBX; ISSN: 1746-0441
PUBLISHER: Informa Healthcare
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review. The eradication of smallpox was announced by the WHO in 1980. However, smallpox has not totally disappeared from people's minds because of its potential use as a biol. weapon. Further outbreaks of smallpox would, needless to say, be devastating in a population, which has little or no immune

defense against the virus. The real concerns come from the fact that the previously used vaccine would not be tolerated today by a number of patients and, more worryingly, there are no approved antiviral drugs against smallpox. This review is focused on the antiviral research, which has been stimulated to deliver potent inhibitors of the replication of the causative agent of smallpox, variola virus.

IT 869572-92-9, ST 246

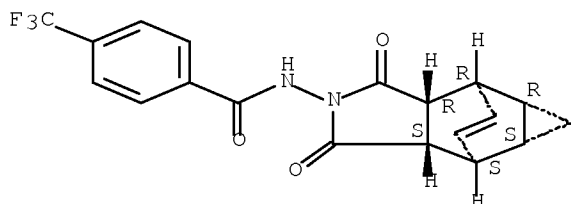
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(ST-246 may be effective in treatment of patient with smallpox)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 26 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:763864 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 147:166336

TITLE: Erastin analogs and their preparation, pharmaceutical compositions and use in the treatment of cancer and other conditions characterized by hyperproliferation of cells

INVENTOR(S): Stockwell, Brent R.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 174pp., Cont.-in-part of Appl. No. PCT/US2006/002723.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----------------|------|----------|-----------------|----------|
| US 20070161644 | A1 | 20070712 | US 2006-492546 | 20060724 |
| WO 2006081337 | A2 | 20060803 | WO 2006-US2723 | 20060125 |
| WO 2006081337 | A3 | 20070215 | | |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,

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WO 2008013840 A2 20080131 WO 2007-US16702 20070724
 WO 2008013840 A3 20081224

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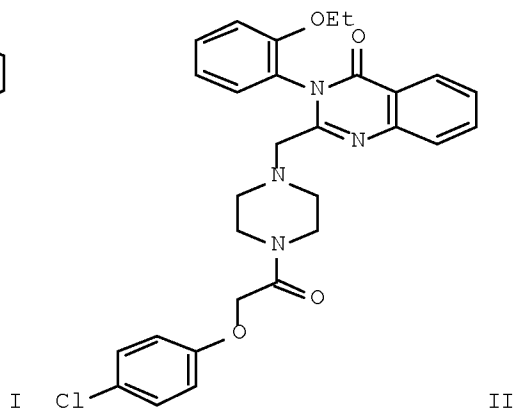
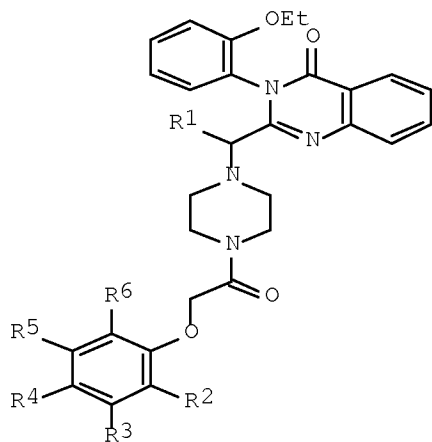
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 BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.:

US 2005-647372P P 20050125
 WO 2006-US2723 A2 20060125
 US 2006-762221P P 20060124
 US 2006-492546 A 20060724

OTHER SOURCE(S): CASREACT 147:166336; MARPAT 147:166336

GI



AB The present invention relates to erastin analogs, particularly compds. of formula I. The invention also relates to pharmaceutical compns. containing such analogs and to methods of treating a condition in a mammal with such analogs and compns. Compds. of formula I wherein R1 is H, C1-8 alkyl, C1-8 alkoxy, 3- to 8-membered carboxylic, and 3- to 8-membered heterocyclic, (hetero)aryl, etc.; R2, R3, R4, R5 and R6 are independently H, halo, C1-4 alkyl(amino), acyl, and alkylsulfonyl; and their enantiomers, optical isomers, diastereoisomers, N-oxides, crystalline forms, hydrates and pharmaceutically acceptable salts thereof, are claimed. Example compound II was prepared by a

multistep procedure (procedure given). All the invention compds. were evaluated for their anticancer activity.

IT 151069-12-4

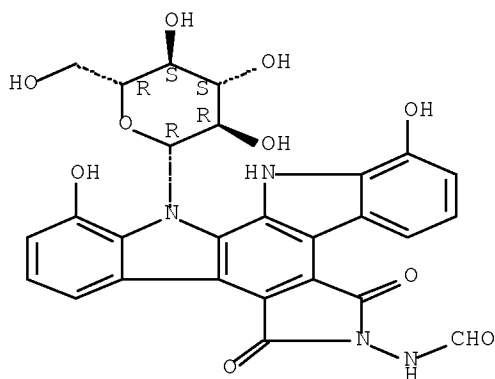
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(codrug; preparation of erastin analogs and uses for treating cancer or other conditions characterized by hyperproliferation of cells)

RN 151069-12-4 CAPLUS

CN Formamide, N-(12- β -D-glucopyranosyl-5,7,12,13-tetrahydro-1,11-dihydroxy-5,7-dioxo-6H-indolo[2,3-a]pyrrolo[3,4-c]carbazol-6-yl)- (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:589919 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 147:203018

TITLE: Discovery of novel inhibitors targeting enoyl-acyl carrier protein reductase in Plasmodium falciparum by structure-based virtual screening

AUTHOR(S): Nicola, George; Smith, Colin A.; Lucumi, Edinson; Kuo, Mack R.; Karagyzov, Luchezar; Fidock, David A.; Sacchettini, James C.; Abagyan, Ruben

CORPORATE SOURCE: Department of Molecular Biology, Scripps Research Institute, La Jolla, CA, 92037, USA

SOURCE: Biochemical and Biophysical Research Communications (2007), 358(3), 686-691

CODEN: BBRCA9; ISSN: 0006-291X

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB There is a dire need for novel therapeutics to treat the virulent malarial parasite, Plasmodium falciparum. Recently, the x-ray crystal structure of enoyl-acyl carrier protein reductase (ENR) in complex with triclosan has been determined and provides an opportunity for the rational design of novel inhibitors targeting the active site of ENR. Here, we report the discovery of several compds. by virtual screening and their exptl. validation as high potency PfENR inhibitors.

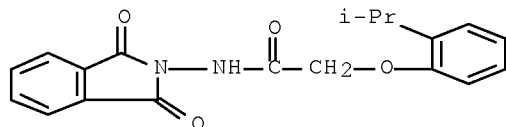
IT 650612-33-2

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(inhibitors targeting enoyl-acyl carrier protein reductase in
Plasmodium falciparum by structure-based virtual screening)

RN 650612-33-2 CAPLUS

CN Acetamide, N-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-2-[2-(1-methylethyl)phenoxy]- (CA INDEX NAME)



OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD
(9 CITINGS)
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 28 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:510984 CAPLUS Full-text

DOCUMENT NUMBER: 147:86388

TITLE: Efficacy of the antipoxvirus compound ST-246 for
treatment of severe orthopoxvirus infection

AUTHOR(S): Sbrana, Elena; Jordan, Robert; Hruby, Dennis E.;
Mateo, Rosa I.; Xiao, Shu-Yuan; Siirin, Marina;
Newman, Patrick C.; Da Rosa, Amelia P. A. Travassos;
Tesh, Robert B.

CORPORATE SOURCE: Departments of Pathology and Internal Medicine and
Center for Biodefense and Emerging Infectious
Diseases, University of Texas Medical Branch,
Galveston, TX, USA

SOURCE: American Journal of Tropical Medicine and Hygiene
(2007), 76(4), 768-773

CODEN: AJTHAB; ISSN: 0002-9637

PUBLISHER: American Society of Tropical Medicine and Hygiene

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Efficacy of the new antipoxvirus compound ST-246 was evaluated as treatment of
monkeypox (MPX) virus infection in a ground squirrel model of the disease.
Ground squirrels were given a LD of MPX virus and were then treated orally at
various times post-inoculation (pi) with 100 mg/kg/day of ST-246. Morbidity
and mortality, clin. laboratory results, viral load, and pathol. of placebo
and treatment groups were compared. All animals that started treatment with
ST-246 on days 0, 1, 2, and 3 pi survived lethal challenge with MPX virus; 67%
of animals treated on day 4 pi also survived. In contrast, 100% of the
placebo group died. Most of the ST-246-treated animals showed no evidence of
clin. disease or alteration of baseline clin. laboratory values and had
minimal histopathol. changes. These results suggest that ST-246 is a
promising candidate for early treatment of severe orthopoxvirus infection.

IT 869572-92-9, ST-246

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU
(Therapeutic use); BIOL (Biological study); USES (Uses)

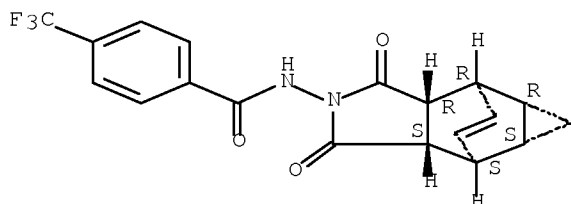
(efficacy of antipoxvirus compound ST-246 for treatment of severe
monkeypox virus infection in ground squirrel model)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-
dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel-

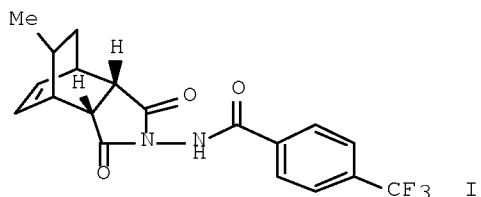
(CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS RECORD (19 CITINGS)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 29 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2007:242088 CAPLUS Full-text
DOCUMENT NUMBER: 146:474748
TITLE: N-(3,3a,4,4a,5,5a,6,6a-Octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2-(1H)-yl)carboxamides: Identification of Novel Orthopoxvirus Egress Inhibitors
AUTHOR(S): Bailey, Thomas R.; Rippin, Susan R.; Opsitnick, Elizabeth; Burns, Christopher J.; Pevear, Daniel C.; Collett, Marc S.; Rhodes, Gerry; Tohan, Sanjeev; Huggins, John W.; Baker, Robert O.; Kern, Earl R.; Keith, Kathy A.; Dai, Dongcheng; Yang, Guang; Hruby, Dennis; Jordan, Robert
CORPORATE SOURCE: ViroPharma Incorporated, Exton, PA, 19341, USA
SOURCE: Journal of Medicinal Chemistry (2007), 50(7), 1442-1444
CODEN: JMCMAR; ISSN: 0022-2623
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 146:474748
GI



AB A series of novel, potent orthopoxvirus egress inhibitors was identified during high-throughput screening of the ViroPharma small mol. collection. Using structure-activity relationship information inferred from early hits,

several compds. were synthesized, and compound 14 was identified as a potent, orally bioavailable first-in-class inhibitor of orthopoxvirus egress from infected cells. Compound (I) has shown comparable efficaciousness in three murine orthopoxvirus models and has entered Phase I clin. trials.

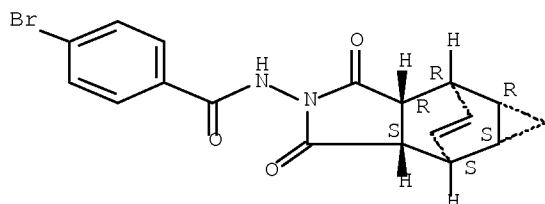
IT 935766-07-7E

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(octahydrodioxoethenocyclopropisoindol carboxamides as orthopoxvirus egress inhibitors)

RN 935766-07-7 CAPLUS

CN Benzamide, 4-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

Relative stereochemistry.



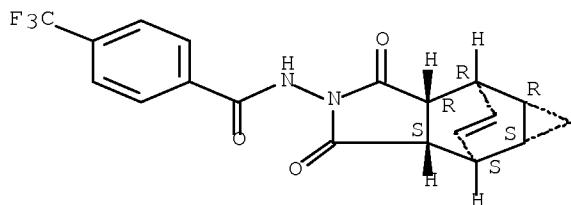
IT 869572-92-9P

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(octahydrodioxoethenocyclopropisoindol carboxamides as orthopoxvirus egress inhibitors)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



| | | | |
|----|--------------|--------------|--------------|
| IT | 935765-96-1P | 935765-97-2P | 935765-98-3P |
| | 935765-99-4P | 935766-00-0P | 935766-01-1P |
| | 935766-02-2P | 935766-03-3P | 935766-04-4P |
| | 935766-05-5P | 935766-06-6P | 935766-09-9P |
| | 935766-10-2P | 935766-11-3P | |

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

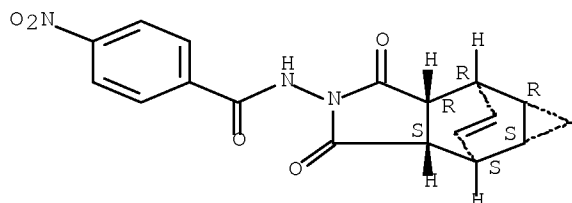
(Uses)

(octahydrodioxoethenocyclopropisoindol carboxamides as orthopoxvirus
egress inhibitors)

RN 935765-96-1 CAPLUS

CN Benzamide, 4-nitro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-
octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA
INDEX NAME)

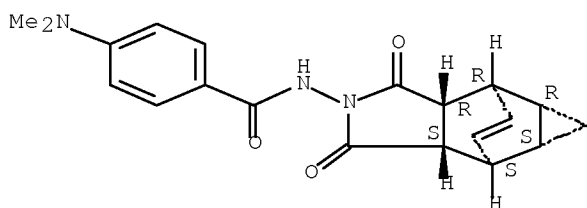
Relative stereochemistry.



RN 935765-97-2 CAPLUS

CN Benzamide, 4-(dimethylamino)-N-[(3aR,4R,4aR,5aS,6S,6aS)-
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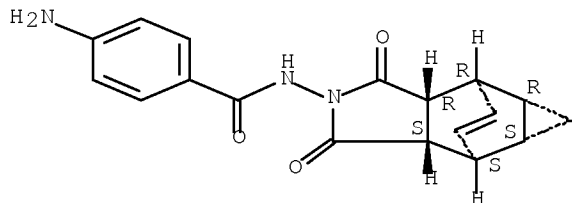
Relative stereochemistry.



RN 935765-98-3 CAPLUS

CN Benzamide, 4-amino-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-
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INDEX NAME)

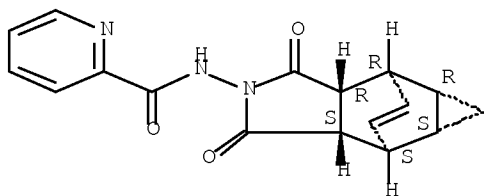
Relative stereochemistry.



RN 935765-99-4 CAPLUS

CN 2-Pyridinecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

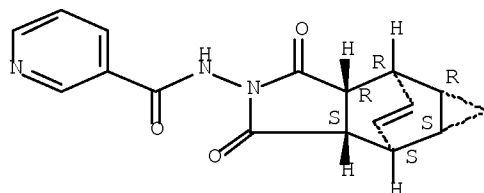
Relative stereochemistry.



RN 935766-00-0 CAPLUS

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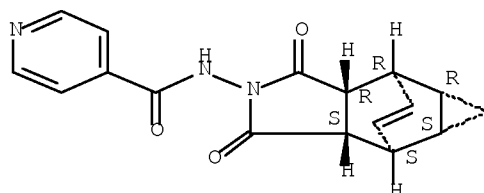
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RN 935766-01-1 CAPLUS

CN 4-Pyridinecarboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

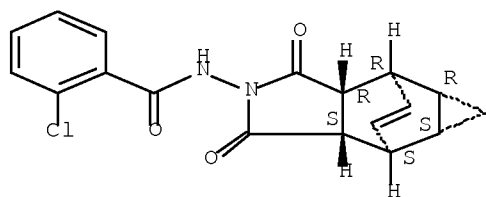
Relative stereochemistry.



RN 935766-02-2 CAPLUS

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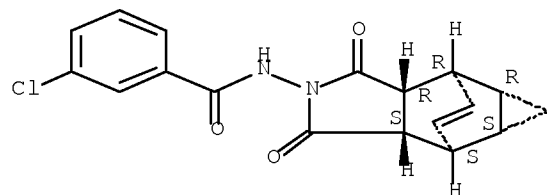
Relative stereochemistry.



RN 935766-03-3 CAPLUS

CN Benzamide, 3-chloro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

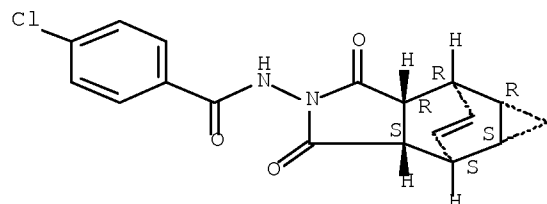
Relative stereochemistry.



RN 935766-04-4 CAPLUS

CN Benzamide, 4-chloro-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

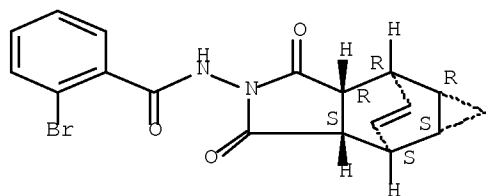
Relative stereochemistry.



RN 935766-05-5 CAPLUS

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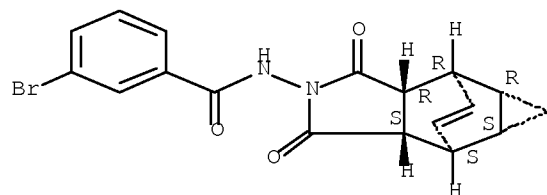
Relative stereochemistry.



RN 935766-06-6 CAPLUS

CN Benzamide, 3-bromo-N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-, rel- (CA INDEX NAME)

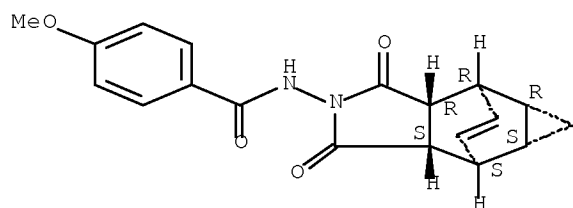
Relative stereochemistry.



RN 935766-09-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-methoxy-, rel- (CA INDEX NAME)

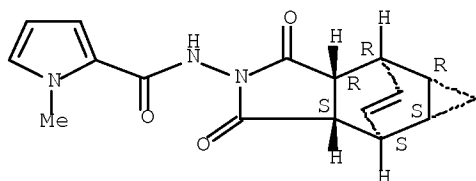
Relative stereochemistry.



RN 935766-10-2 CAPLUS

CN 1H-Pyrrole-2-carboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-1-methyl-, rel- (CA INDEX NAME)

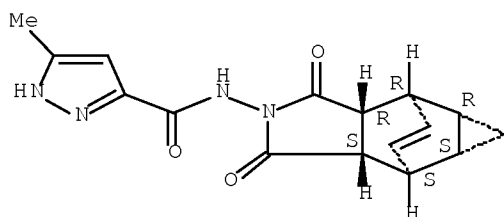
Relative stereochemistry.



RN 935766-11-3 CAPLUS

CN 1H-Pyrazole-3-carboxamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-5-methyl-, rel- (CA INDEX NAME)

Relative stereochemistry.



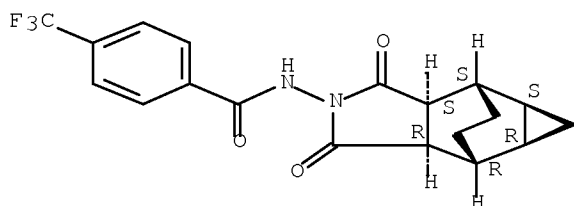
IT 945962-36-7F

RL: SPN (Synthetic preparation); PREP (Preparation)
(octahydrodioxoethenocyclopropisoindol carboxamides as orthopoxvirus egress inhibitors)

RN 945962-36-7 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-octahydro-1,3-dioxo-4,6-ethanocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 9 THERE ARE 9 CAPLUS RECORDS THAT CITE THIS RECORD (9 CITINGS)

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 30 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:175441 CAPLUS Full-text

DOCUMENT NUMBER: 146:229616

TITLE: Preparation of macrocyclic inhibitors of hepatitis C

INVENTOR(S): virus
 Waehling, Horst; Samuelsson, Bertil
 PATENT ASSIGNEE(S): Medivir AB, Swed.
 SOURCE: PCT Int. Appl., 132pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

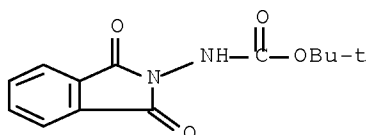
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|------------|
| WO 2007017144 | A2 | 20070215 | WO 2006-EP7514 | 20060728 |
| WO 2007017144 | A3 | 20071129 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA | | | | |
| EP 1910347 | A2 | 20080416 | EP 2006-762894 | 20060728 |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS | | | | |
| JP 2009502845 | T | 20090129 | JP 2008-523260 | 20060728 |
| MX 2008001254 | A | 20080515 | MX 2008-1254 | 20080125 |
| US 20090023758 | A1 | 20090122 | US 2008-997082 | 20080128 |
| IN 2008DN01450 | A | 20080808 | IN 2008-DN1450 | 20080220 |
| CN 101273038 | A | 20080924 | CN 2006-80035599 | 20080326 |
| PRIORITY APPLN. INFO.: | | | EP 2005-107059 | A 20050729 |
| | | | WO 2006-EP7514 | W 20060728 |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
 OTHER SOURCE(S): CASREACT 146:229616; MARPAT 146:229616
 GI

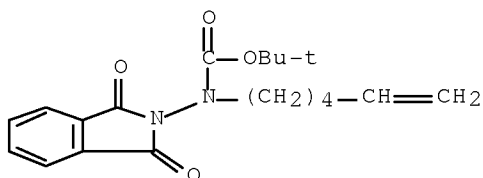
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to macrocyclic compds. I [the dashed line represents an optional double bond; X is (CH₂)₃₋₆; L is N, CH, or C; A is OH, OR₄ (R₄ is alkyl, alkylencarbo- or alkyleneheterocyclyl), NHSO₁₋₂R₅ (R₅ is a group R₄ or NRaRb, where Ra is H, alkyl, or alkoxy and Rb is H, alkoxy, or a group R₄), NHR₆ (R₆ is a group R₄, alkoxy, -O-alkylencarbo- or -heterocyclyl), NRaRb, CONHR₆, or CONRaRb; W is CH₂, O, O₂CNH, O₂C, S, NH, NRa, NHSO₂, NHCONH, NHCO, NHC(S), or a bond; R₁ is a ring system containing 1 or 2 rings each having 4-7 ring atoms each of which has 0-4 hetero atoms independently selected from S, O and N, the ring system being optionally spaced from W by a C₁-C₃ alkylene group; or R₁ is alkyl; R₂ is H, alkyl; R₃, R₃' are alkyl], including N-oxides, salts, and stereoisomers, which have utility in the inhibition of NS3 serine proteases such as flavivirus infections. Thus, macrocycle II was prepared by a multistep procedure which includes ring-forming metathesis reaction and assayed for inhibition of HCV NS3/4A protease (EC₅₀ 0.5-49 nM, Ki 0.1-4.9 nM).

IT 34387-89-8P 924289-27-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation of macrocyclic inhibitors of hepatitis C virus)
RN 34387-89-8 CAPLUS
CN Carbamic acid, N-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-,
1,1-dimethylethyl ester (CA INDEX NAME)



RN 924289-27-0 CAPLUS
CN Carbamic acid, N-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-N-5-hexen-1-yl-,
1,1-dimethylethyl ester (CA INDEX NAME)



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

L9 ANSWER 31 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2007:148013 CAPLUS Full-text

DOCUMENT NUMBER: 146:197856

TITLE: Efficacy of delayed treatment with ST-246 given orally
against systemic orthopoxvirus infections in mice

AUTHOR(S): Quenelle, Debra C.; Buller, R. M. L.; Parker, Scott;
Keith, Kathy A.; Hruby, Dennis E.; Jordan, Robert;
Kern, Earl R.

CORPORATE SOURCE: University of Alabama School of Medicine, Birmingham,
AL, USA

SOURCE: Antimicrobial Agents and Chemotherapy (2007), 51(2),
689-695

CODEN: AMACCQ; ISSN: 0066-4804

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB ST-246 was evaluated for activity against cowpox virus (CV), vaccinia virus
(VV), and ectromelia virus (ECTV) and had an in vitro 50% effective
concentration (EC50) of 0.48 μ M against CV, 0.05 μ M against VV, and 0.07 μ M
against ECTV. The selectivity indexes were >208 and >2,000 for CV and VV,
resp. The in vitro antiviral activity of ST-246 was significantly greater
than that of cidofovir, which had an EC50 of 41.1 μ M against CV and 29.2 μ M
against VV, with selectivity indexes of >7 and >10, resp. ST-246 administered

once daily by oral gavage to mice infected intranasally with CV beginning 4 h or delayed until 72 h postinoculation was highly effective when given for a 14-day duration using 100, 30, or 10 mg/kg of body weight. When 100 mg/kg of ST-246 was administered to VV-infected mice, a duration of 5 days was sufficient to significantly reduce mortality even when treatment was delayed 24 h postinoculation. Viral replication in liver, spleen, and kidney, but not lung, of CV- or VV-infected mice was reduced by ST-246 compared to levels for vehicle-treated mice. When 100 mg/kg of ST-246 was given once daily to mice infected by the intranasal route with ECTV, treatment for 10 days prevented mortality even when treatment was delayed up to 72 h after viral inoculation. Viral replication in target organs of ECTV-infected mice was also reduced.

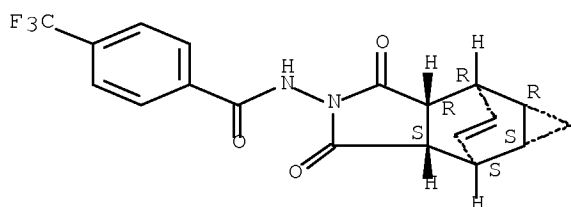
IT 869572-92-9, ST 246

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ST 246; delayed treatment with ST-246 against systemic orthopoxvirus infections)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



| | | | | |
|---|----|----------|------------------|------------|
| WO 2006081331 | A2 | 20060803 | WO 2006-US2717 | 20060125 |
| WO 2006081331 | A3 | 20070607 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA | | | | |
| AU 2006208084 | A1 | 20060803 | AU 2006-208084 | 20060125 |
| CA 2595848 | A1 | 20060803 | CA 2006-2595848 | 20060125 |
| US 20060211683 | A1 | 20060921 | US 2006-340430 | 20060125 |
| US 7615554 | B2 | 20091110 | | |
| EP 1848698 | A2 | 20071031 | EP 2006-733907 | 20060125 |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU | | | | |
| JP 2008531476 | T | 20080814 | JP 2007-552406 | 20060125 |
| BR 2006007306 | A2 | 20090825 | BR 2006-7306 | 20060125 |
| MX 2007008931 | A | 20080829 | MX 2007-8931 | 20070724 |
| IN 2007DN06406 | A | 20070831 | IN 2007-DN6406 | 20070817 |
| KR 2008009048 | A | 20080124 | KR 2007-719501 | 20070824 |
| CN 101218211 | A | 20080709 | CN 2006-80009733 | 20070925 |
| US 20090214465 | A1 | 20090827 | US 2009-883092 | 20090108 |
| PRIORITY APPLN. INFO.: | | | US 2005-647303P | P 20050125 |
| | | | US 2006-762221P | P 20060124 |
| | | | WO 2006-US2717 | W 20060125 |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): CASREACT 145:224844; MARPAT 145:224844

AB The invention relates to methods of screening for binding partners, especially binding partners essential for the biol. activity of erastin (e.g. VDACS such as VDACC3). The invention also provides reagents and methods for effective killing of cancer cells with erastin and related compds. or derivs.

IT 151069-12-4, NB-506

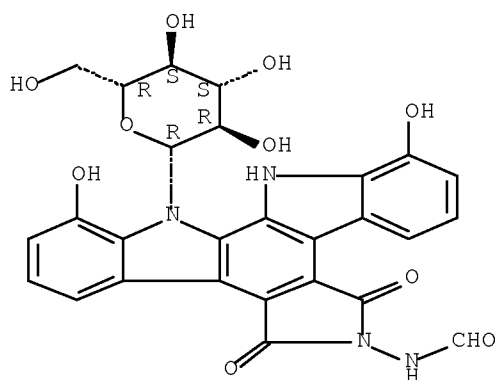
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(erastin analogs and erastin-binding proteins such as VDACC and uses thereof to treat cancer and combination with other agents in relation to drug screening)

RN 151069-12-4 CAPLUS

CN Formamide, N-(12-β-D-glucopyranosyl-5,7,12,13-tetrahydro-1,11-dihydroxy-5,7-dioxo-6H-indolo[2,3-a]pyrrolo[3,4-c]carbazol-6-yl)- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)

L9 ANSWER 33 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2006:768301 CAPLUS Full-text
 DOCUMENT NUMBER: 145:202874
 TITLE: Erastin and erastin binding proteins, and uses thereof
 INVENTOR(S): Stockwell, Brent R.
 PATENT ASSIGNEE(S): Whitehead Institute for Biomedical Research, USA; The
 Trustees of Columbia University in the City of New
 York
 SOURCE: PCT Int. Appl., 189 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2006081337 | A2 | 20060803 | WO 2006-US2723 | 20060125 |
| WO 2006081337 | A3 | 20070215 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM JP 2008537726 T 20080925 JP 2007-553218 20060125 US 20070161644 A1 20070712 US 2006-492546 20060724 PRIORITY APPLN. INFO.: US 2005-647372P P 20050125 US 2006-762221P P 20060124 WO 2006-US2723 W 20060125 | | | | |

OTHER SOURCE(S): MARPAT 145:202874
 AB The invention relates to methods of screening for binding partners, especially
 binding partners essential for the biol. activity of erastin (e.g. VDACS such

as VDAC3). The invention also provides reagents and methods for effective killing of cancer cells with erastin and related compds. or derivs.

IT 151069-12-4, NB-506

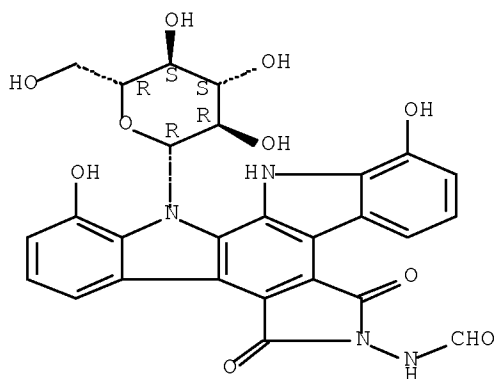
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(erastin analogs and erastin-binding proteins such as VDAC and uses thereof to treat cancer and combination with other agents)

RN 151069-12-4 CAPLUS

CN Formamide, N-(12- β -D-glucopyranosyl-5,7,12,13-tetrahydro-1,11-dihydroxy-5,7-dioxo-6H-indolo[2,3-a]pyrrolo[3,4-c]carbazol-6-yl)- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 34 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:108925 CAPLUS Full-text

DOCUMENT NUMBER: 144:331215

TITLE: Synthesis of some heterocycle containing urea derivatives and their anti-viral activity

AUTHOR(S): Verma, Manjusha; Singh, Krishna N.; Clercq, Erik D.

CORPORATE SOURCE: Department of Applied Chemistry, Institute of Technology, Banaras Hindu University, Varanasi, 221005, India

SOURCE: Heterocycles (2006), 68(1), 11-22

CODEN: HTCYAM; ISSN: 0385-5414

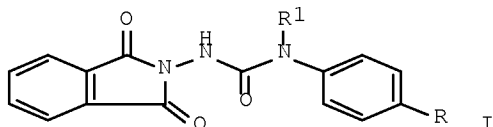
PUBLISHER: Japan Institute of Heterocyclic Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 144:331215

GI



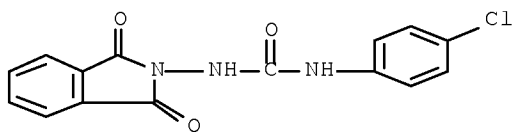
AB Isoindolylureas I [R = Cl, Br, NO₂, R₁ = H, Me; R = F, CO₂H, OMe, R₁ = H] were prepared from N-aminophthalimide and 4-RC₆H₄NR₁CO₂Et. All I were evaluated for anti-viral activity against a variety of viruses. I [R = OMe, R₁ = H] showed better activity than the standard drugs against all the viruses. Further, all I were active against Vesicular stomatitis virus, Coxsackie virus B4 and Respiratory syncytial virus and I [R = Br, NO₂, R₁ = Me] displayed better antiviral activity in comparison to Brivudin and (S)-DHPA.

IT 314282-68-3P 677312-09-3P 677312-11-7P
 880884-52-6P 880884-53-7P 880884-54-8P
 880884-55-9P 880884-56-0P 880884-57-1P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (preparation of N-isoindolyl-N'-arylureas and their anti-viral activity)

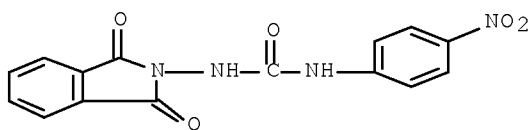
RN 314282-68-3 CAPLUS

CN Urea, N-(4-chlorophenyl)-N'-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- (CA INDEX NAME)



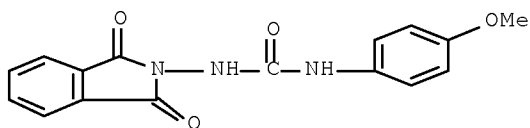
RN 677312-09-3 CAPLUS

CN Urea, N-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-N'-(4-nitrophenyl)- (CA INDEX NAME)



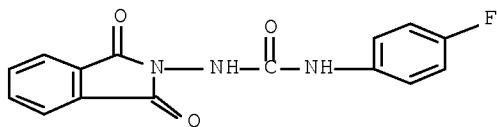
RN 677312-11-7 CAPLUS

CN Urea, N-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-N'-(4-methoxyphenyl)- (CA INDEX NAME)



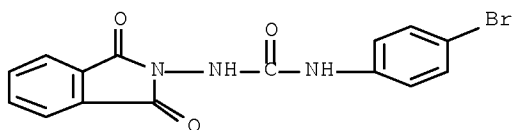
RN 880884-52-6 CAPLUS

CN Urea, N-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-N'-(4-fluorophenyl)- (CA INDEX NAME)



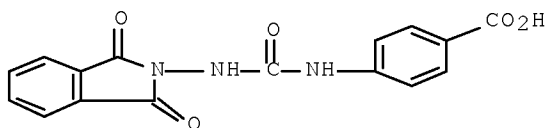
RN 880884-53-7 CAPLUS

CN Urea, N-(4-bromophenyl)-N'-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)- (CA INDEX NAME)



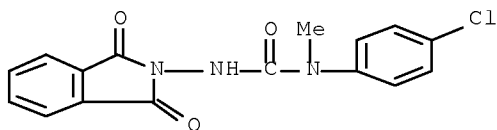
RN 880884-54-8 CAPLUS

CN Benzoic acid, 4-[[[(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)amino]carbonyl]amino]- (CA INDEX NAME)



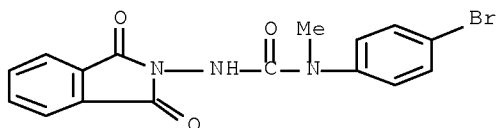
RN 880884-55-9 CAPLUS

CN Urea, N-(4-chlorophenyl)-N'-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-N-methyl- (CA INDEX NAME)



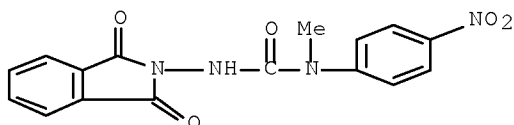
RN 880884-56-0 CAPLUS

CN Urea, N-(4-bromophenyl)-N'-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-N-methyl- (CA INDEX NAME)



RN 880884-57-1 CAPLUS

CN Urea, N'-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-N-methyl-N-(4-nitrophenyl)- (CA INDEX NAME)



OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)

REFERENCE COUNT: 61 THERE ARE 61 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 35 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:13464 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 144:101073

TITLE: therapeutic uses of kinase inhibitors, and compositions thereof

INVENTOR(S): Caligiuri, Maureen G.; Kley, Nikolai A.; Murthi, Krishna K.

PATENT ASSIGNEE(S): GPC Biotech, Inc., USA

SOURCE: PCT Int. Appl., 201 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|--|----------|-----------------|----------|
| ----- | --- | ----- | ----- | ----- |
| WO 2006002119 | A2 | 20060105 | WO 2005-US21843 | 20050617 |
| WO 2006002119 | A3 | 20070222 | | |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, | | | |

IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF,
CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM,
KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG,
KZ, MD, RU, TJ, TM
CA 2584493 A1 20060105 CA 2005-2584493 20050617
EP 1763345 A2 20070321 EP 2005-762859 20050617
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA,
HR, LV, MK, YU
EP 2027853 A2 20090225 EP 2008-153670 20050617
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA,
HR, LV, MK, RS
US 20080146555 A1 20080619 US 2007-629638 20071220
PRIORITY APPLN. INFO.: US 2004-580868P P 20040618
EP 2005-762859 A3 20050617
WO 2005-US21843 W 20050617

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 144:101073

AB The invention pertains to inhibitors of various kinases (e.g. S/T kinases, Tyr kinases, etc.), which inhibitors were previously known as cyclin-dependent kinase inhibitors (CDKs). The inhibitors of the invention are capable of inhibiting various wild-type and mutant form kinases, including drug-resistant forms of mutant kinases. Thus, the kinase inhibitors are useful in treating a wide range of diseases/conditions associated with abnormal functions/excessive activities of the target kinases, including mutant kinases. The invention further provides methods for treating cancers, tumors, and patients which are resistant or refractory to other therapeutic agents. Pharmaceutical compns. and packaged pharmaceuticals with instructions of these inhibitors and methods of using these inhibitors are also provided.

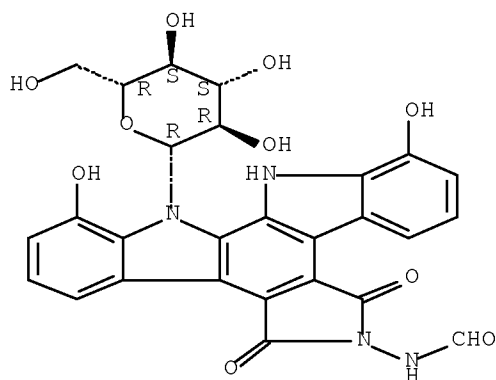
IT 151069-12-4, NB-506

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
(kinase inhibitors for therapeutic use)

RN 151069-12-4 CAPLUS

CN Formamide, N-(12- β -D-glucopyranosyl-5,7,12,13-tetrahydro-1,11-dihydroxy-5,7-dioxo-6H-indolo[2,3-a]pyrrolo[3,4-c]carbazol-6-yl)- (CA INDEX NAME)

Absolute stereochemistry.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD
(2 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 36 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 2005:1220709 CAPLUS Full-text
DOCUMENT NUMBER: 143:459940
TITLE: Preparation of novel antiviral helioxanthin analogs
INVENTOR(S): Yeo, Hosup; Austin, David J.; Li, Ling; Cheng, Yung-Chi
PATENT ASSIGNEE(S): Yale University, USA
SOURCE: PCT Int. Appl., 90 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--|----------|--|------------|
| WO 2005107742 | A1 | 20051117 | WO 2005-US14698 | 20050502 |
| W: | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | |
| RW: | BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | |
| CN 1980657 | A | 20070613 | CN 2005-80022812 | 20050502 |
| KR 2007011451 | A | 20070124 | KR 2006-723265 | 20061106 |
| US 20080167353 | A1 | 20080710 | US 2007-579284 | 20070918 |
| PRIORITY APPLN. INFO.: | | | US 2004-568348P | P 20040505 |
| | | | WO 2005-US14698 | W 20050502 |
| OTHER SOURCE(S): | | | CASREACT 143:459940; MARPAT 143:459940 | |
| GI | | | | |

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The present invention relates to the preparation of novel antiviral helioxanthin analogs, such as I and II [R1, R2 = acyl, alkyl, carboxy, carbamoyl, etc.; R13 = H, OH, alkoxy, alkyl; R15 = H, OH, halogen, alkoxy, alkyl; R3', R4' = alkyl; R3'R4' = alkenylene; -X1-, -X2- = -C(O)-, -CH2-, -CH(OMe)-, etc.; -Y- = -O-, -N(R6a)-, -N(R7)N(R8)-; R6a, R7, R8 = H, OH, alkyl, alkoxy, etc.]. These helioxanthin analogs are claimed for therapeutic use in the treatment of infections of viruses, such as hepadnaviruses, flaviviruses, herpes viruses and human immunodeficiency viruses. These helioxanthin analogs may be administered in combination with other antiviral agents from the group consisting of AZT, ddC, ddI, d4T, 3TC, delvaridine, nevirapine, and efavirenz saquinavir, ritonavir, indinavir, nelfinavir or amprenavir. These compds. can also be used to prevent or reduce the likelihood of the occurrence of tumors secondary to virus infection as well as other infections or disease states that are secondary to the virus infection. Thus, the helioxanthin analog 10-benzo[1,3]dioxol-5-yl-1,3-dioxo-8-azadicyclopenta[a,g]naphthalene-7,9- dione

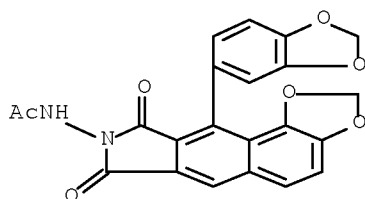
(III) was prepared in 17% yield by a cyclization reaction of hydroxyacetal IV and maleimide using AcOH/(Ac)₂O in CH₂Cl₂. The prepared helioxanthin analogs were assayed in vitro for activity against a number of human viruses, such as HIV, HSV-1, HSV-2, HCV, EBV and CMV, and for cytotoxicity against HepG2 and CEM tumor cells.

IT 840529-10-4F

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of novel antiviral and antitumor helioxanthin analogs)

RN 840529-10-4 CAPLUS

CN Acetamide, N-[10-(1,3-benzodioxol-5-yl)-7,9-dihydro-7,9-dioxo-8H-1,3-dioxolo[3,4]benz[1,2-f]isoindol-8-yl]- (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 37 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2005:1111364 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 144:228

TITLE: An orally bioavailable antipoxvirus compound (ST-246) inhibits extracellular virus formation and protects mice from lethal orthopoxvirus challenge

AUTHOR(S): Yang, Guang; Pevear, Daniel C.; Davies, Marc H.; Collett, Marc S.; Bailey, Tom; Rippen, Susan; Barone, Linda; Burns, Chris; Rhodes, Gerry; Tohan, Sanjeev; Huggins, John W.; Baker, Robert O.; Buller, R. L. Mark; Touchette, Erin; Waller, Kem; Schriewer, Jill; Neyts, Johan; DeClercq, Erik; Jones, Kevin; Hruby, Dennis; Jordan, Robert

CORPORATE SOURCE: ViroPharma, Inc., Exton, PA, USA

SOURCE: Journal of Virology (2005), 79(20), 13139-13149
CODEN: JOVIAM; ISSN: 0022-538X

PUBLISHER: American Society for Microbiology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB ST-246 is a low-mol.-weight compound (mol. weight = 376), that is potent (concentration that inhibited virus replication by 50% = 0.010 μ M), selective (concentration of compound that inhibited cell viability by 50% = >40 μ M), and active against multiple orthopoxviruses, including vaccinia, monkeypox, camelpox, cowpox, ectromelia (mousepox), and variola viruses. Cowpox virus variants selected in cell culture for resistance to ST-246 were found to have a single amino acid change in the V061 gene. Reengineering this change back into the wild-type cowpox virus genome conferred resistance to ST-246, suggesting that V061 is the target of ST-246 antiviral activity. The cowpox virus V061 gene is homologous to vaccinia virus F13L, which encodes a major envelope protein (p37) required for production of extracellular virus. In

cell culture, ST-246 inhibited plaque formation and virus-induced cytopathic effects. In single-cycle growth assays, ST-246 reduced extracellular virus formation by 10-fold relative to untreated controls, while having little effect on the production of intracellular virus. In vivo oral administration of ST-246 protected BALB/c mice from lethal infection, following intranasal inoculation with 10+ 50% LD (LD50) of vaccinia virus strain IHD-J. ST-246-treated mice that survived infection acquired protective immunity and were resistant to subsequent challenge with a LD (10+ LD50) of vaccinia virus. Orally administered ST-246 also protected A/NCr mice from lethal infection, following intranasal inoculation with 40,000+ LD50 of ectromelia virus. Infectious virus titers at day 8 postinfection in liver, spleen, and lung from ST-246-treated animals were below the limits of detection (<10 PFU/mL). In contrast, mean virus titers in liver, spleen, and lung tissues from placebo-treated mice were 6.2 ± 10^7 , 5.2 ± 10^7 , and 1.8 ± 10^5 PFU/mL, resp. Finally, oral administration of ST-246 inhibited vaccinia virus-induced tail lesions in Naval Medical Research Institute mice inoculated via the tail vein. Taken together, these results validate Fl3L as an antiviral target and demonstrate that an inhibitor of extracellular virus formation can protect mice from orthopoxvirus-induced disease.

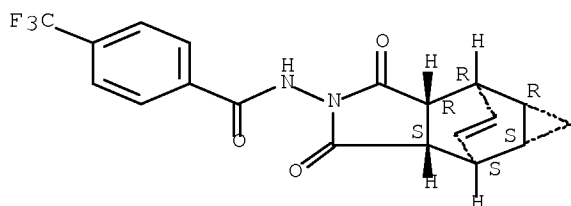
IT 869572-92-9, ST 246

RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(orally bioavailable antipoxvirus compound (ST-246) inhibits extracellular virus formation and protects mice from lethal orthopoxvirus challenge)

RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



OS.CITING REF COUNT: 67 THERE ARE 67 CAPLUS RECORDS THAT CITE THIS RECORD (67 CITINGS)
REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 38 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2004:1156449 CAPLUS Full-text

DOCUMENT NUMBER: 142:86610

TITLE: Compounds, compositions and methods for treatment and prevention of orthopoxvirus infections and associated diseases using di-, tri-, and tetracyclic acylhydrazide derivatives and analogs

INVENTOR(S): Jordan, Robert; Bailey, Thomas R.; Rippin, Susan R.

PATENT ASSIGNEE(S): Viropharma Incorporated, USA

SOURCE: PCT Int. Appl., 55 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 4
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|-------------|
| WO 2004112718 | A2 | 20041229 | WO 2004-US19552 | 20040618 |
| WO 2004112718 | A3 | 20050407 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2004249250 | A1 | 20041229 | AU 2004-249250 | 20040618 |
| CA 2529761 | A1 | 20041229 | CA 2004-2529761 | 20040618 |
| EP 1638938 | A2 | 20060329 | EP 2004-776765 | 20040618 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK | | | | |
| JP 2007521273 | T | 20070802 | JP 2006-517409 | 20040618 |
| US 20060235051 | A1 | 20061019 | US 2006-561153 | 20060405 |
| US 20080103181 | A9 | 20080501 | | |
| US 20070287735 | A1 | 20071213 | US 2007-785998 | 20070423 |
| US 20080004452 | A1 | 20080103 | US 2007-785997 | 20070423 |
| CA 2685198 | A1 | 20080703 | CA 2007-2685198 | 20070423 |
| PRIORITY APPLN. INFO.: | | | US 2003-480182P | P 20030620 |
| | | | WO 2004-US19552 | W 20040618 |
| | | | US 2006-561153 | A2 20060405 |
| | | | WO 2007-US9750 | W 20070423 |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 142:86610

AB Methods of using di, tri, and tetracyclic acylhydrazide derivs. and analogs, as well as pharmaceutical compns. containing the same, are disclosed for the treatment or prophylaxis of viral infections and diseases associated therewith, particularly those viral infections and associated diseases caused by the orthopoxvirus. 4-Trifluoromethyl-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)benzamide (prepared from cycloheptatriene, maleic anhydride and 4-trifluoromethylbenzhydrazide in two steps) inhibited vaccinia virus and cowpox virus with EC50 values of <0.5 µM.

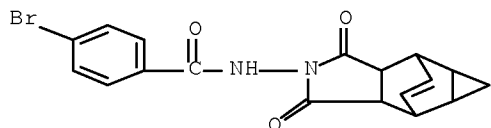
IT 302780-38-7P 313270-75-6P 323177-91-9P
 323203-24-3P 342417-34-9P 342417-71-4P
 432022-23-6P 432022-24-7P 816458-32-9P
 816458-33-0P 816458-34-1P 816458-35-2P
 816458-36-3P 816458-37-4P 816458-38-5P
 816458-39-6P 816458-40-9P 816458-41-0P
 816458-42-1P 816458-43-2P 816458-45-4P
 816458-46-5P 816458-57-8P 869572-92-9P

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(di-, tri-, and tetracyclic acylhydrazide derivs. and analogs for treatment and prevention of orthopoxvirus infections and associated diseases)

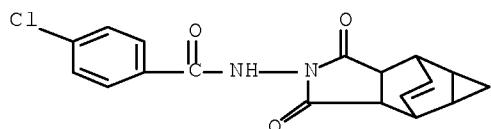
RN 302780-38-7 CAPLUS

CN Benzamide, 4-bromo-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



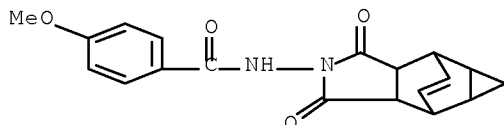
RN 313270-75-6 CAPLUS

CN Benzamide, 4-chloro-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



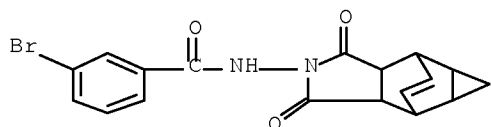
RN 323177-91-9 CAPLUS

CN Benzamide, 4-methoxy-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



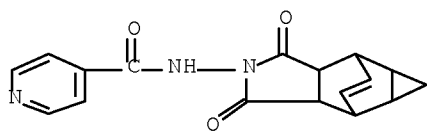
RN 323203-24-3 CAPLUS

CN Benzamide, 3-bromo-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



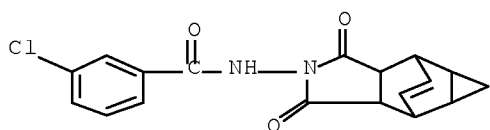
RN 342417-34-9 CAPLUS

CN 4-Pyridinecarboxamide, N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



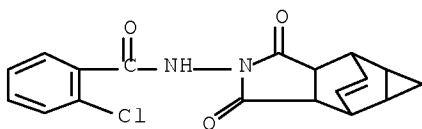
RN 342417-71-4 CAPLUS

CN Benzamide, 3-chloro-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



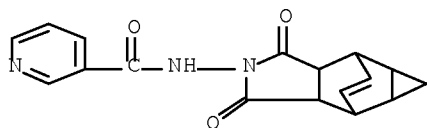
RN 432022-23-6 CAPLUS

CN Benzamide, 2-chloro-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



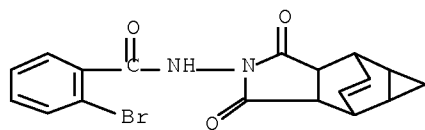
RN 432022-24-7 CAPLUS

CN 3-Pyridinecarboxamide, N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



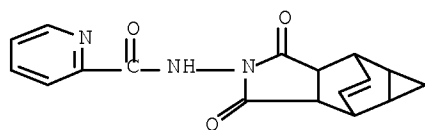
RN 816458-32-9 CAPLUS

CN Benzamide, 2-bromo-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



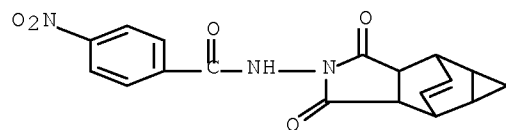
RN 816458-33-0 CAPLUS

CN 2-Pyridinecarboxamide, N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



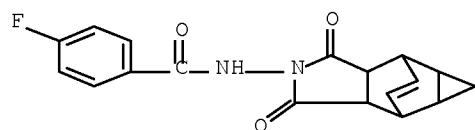
RN 816458-34-1 CAPLUS

CN Benzamide, 4-nitro-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



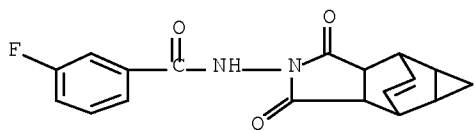
RN 816458-35-2 CAPLUS

CN Benzamide, 4-fluoro-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



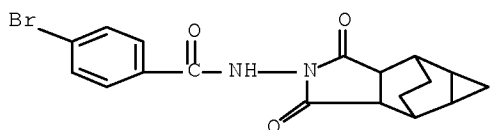
RN 816458-36-3 CAPLUS

CN Benzamide, 3-fluoro-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



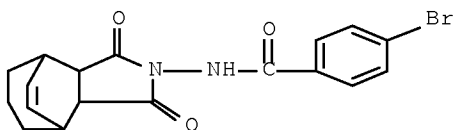
RN 816458-37-4 CAPLUS

CN Benzamide, 4-bromo-N-(octahydro-1,3-dioxo-4,6-ethanocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



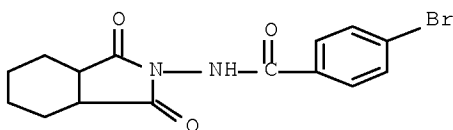
RN 816458-38-5 CAPLUS

CN Benzamide, 4-bromo-N-(3,3a,4,5,6,7,8,8a-octahydro-1,3-dioxo-4,8-ethenocyclohepta[c]pyrrol-2(1H)-yl)- (CA INDEX NAME)



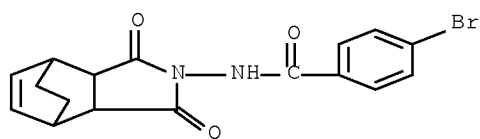
RN 816458-39-6 CAPLUS

CN Benzamide, 4-bromo-N-(octahydro-1,3-dioxo-2H-isoindol-2-yl)- (CA INDEX NAME)



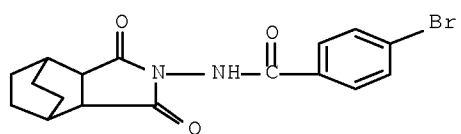
RN 816458-40-9 CAPLUS

CN Benzamide, 4-bromo-N-(1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-ethano-2H-isoindol-2-yl)- (CA INDEX NAME)



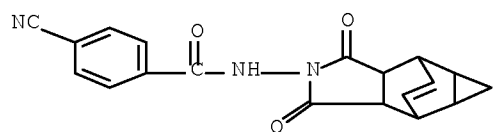
RN 816458-41-0 CAPLUS

CN Benzamide, 4-bromo-N-(octahydro-1,3-dioxo-4,7-ethano-2H-isoindol-2-yl)-
(CA INDEX NAME)



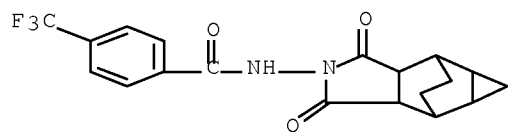
RN 816458-42-1 CAPLUS

CN Benzamide, 4-cyano-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



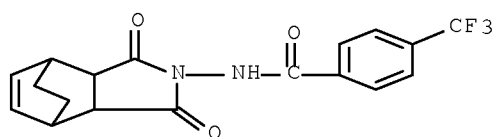
RN 816458-43-2 CAPLUS

CN Benzamide, N-(octahydro-1,3-dioxo-4,6-ethanocycloprop[f]isoindol-2(1H)-yl)-4-(trifluoromethyl)- (CA INDEX NAME)



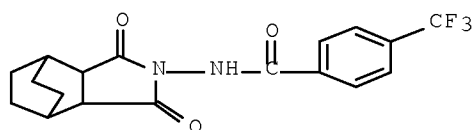
RN 816458-45-4 CAPLUS

CN Benzamide, N-(1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-ethano-2H-isoindol-2-yl)-4-(trifluoromethyl)- (CA INDEX NAME)



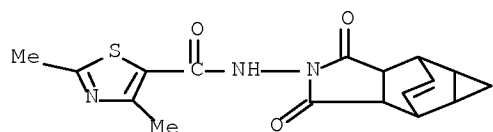
RN 816458-46-5 CAPLUS

CN Benzamide, N-(octahydro-1,3-dioxo-4,7-ethano-2H-isoindol-2-yl)-4-(trifluoromethyl)- (CA INDEX NAME)



RN 816458-57-8 CAPLUS

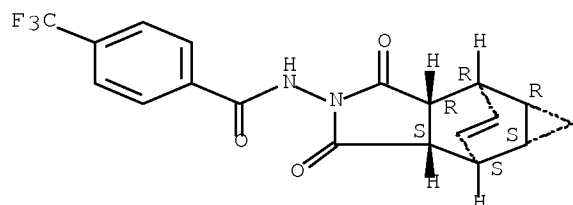
CN 5-Thiazolecarboxamide, 2,4-dimethyl-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



RN 869572-92-9 CAPLUS

CN Benzamide, N-[(3aR,4R,4aR,5aS,6S,6aS)-3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl]-4-(trifluoromethyl)-, rel- (CA INDEX NAME)

Relative stereochemistry.



| | | | |
|----|-------------|-------------|-------------|
| IT | 330625-18-8 | 342417-37-2 | 342417-62-3 |
| | 342417-72-5 | 342608-72-4 | 816458-44-3 |
| | 816458-47-6 | 816458-48-7 | 816458-49-8 |

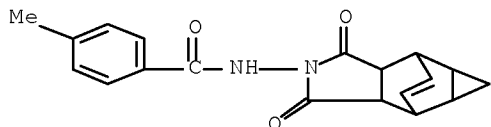
816458-50-1 816458-51-2 816458-52-3
 816458-53-4 816458-54-5 816458-55-6
 816458-56-7

RL: BSU (Biological study, unclassified); PAC (Pharmacological activity);
 THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(di-, tri-, and tetracyclic acylhydrazide derivs. and analogs for
 treatment and prevention of orthopoxvirus infections and associated
 diseases)

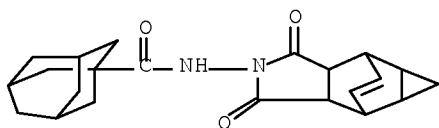
RN 330625-18-8 CAPLUS

CN Benzamide, 4-methyl-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-
 ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



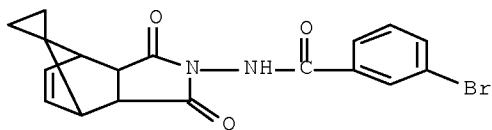
RN 342417-37-2 CAPLUS

CN Tricyclo[3.3.1.1^{3,7}]decane-1-carboxamide,
 N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-
 2(1H)-yl)- (CA INDEX NAME)



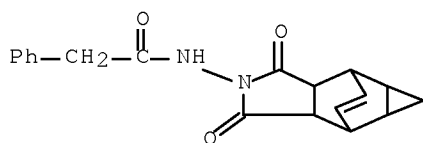
RN 342417-62-3 CAPLUS

CN Benzamide, 3-bromo-N-(1',3',3'a,4',7',7'a-hexahydro-1',3'-
 dioxospiro[cyclopropane-1,8'-[4,7]methano[2H]isoindol]-2'-yl)- (9CI) (CA
 INDEX NAME)



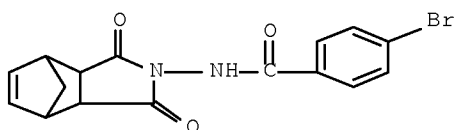
RN 342417-72-5 CAPLUS

CN Benzeneacetamide, N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-
 ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



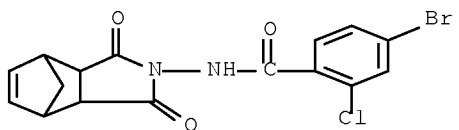
RN 342608-72-4 CAPLUS

CN Benzamide, 4-bromo-N-(1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-methano-2H-isoindol-2-yl)- (CA INDEX NAME)



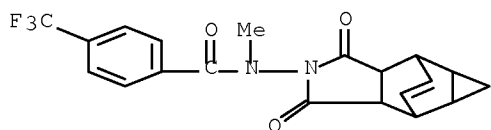
RN 816458-44-3 CAPLUS

CN Benzamide, 4-bromo-2-chloro-N-(1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-methano-2H-isoindol-2-yl)- (CA INDEX NAME)



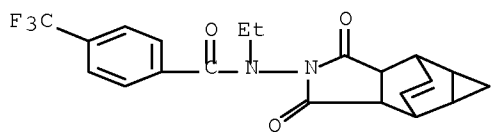
RN 816458-47-6 CAPLUS

CN Benzamide, N-methyl-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)-4-(trifluoromethyl)- (CA INDEX NAME)



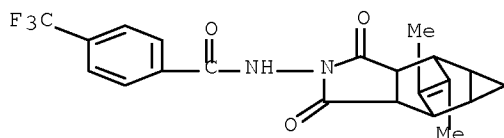
RN 816458-48-7 CAPLUS

CN Benzamide, N-ethyl-N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)-4-(trifluoromethyl)- (CA INDEX NAME)



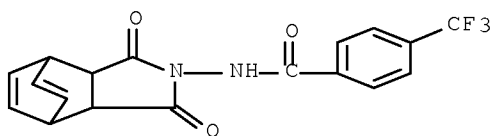
RN 816458-49-8 CAPLUS

CN Benzamide, N-(3,3a,4,4a,5,5a,6,6a-octahydro-7,8-dimethyl-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)-4-(trifluoromethyl)- (CA INDEX NAME)



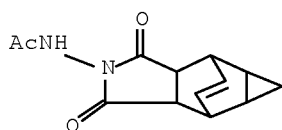
RN 816458-50-1 CAPLUS

CN Benzamide, N-(1,3,3a,4,7,7a-hexahydro-1,3-dioxo-4,7-etheno-2H-isoindol-2-yl)-4-(trifluoromethyl)- (CA INDEX NAME)



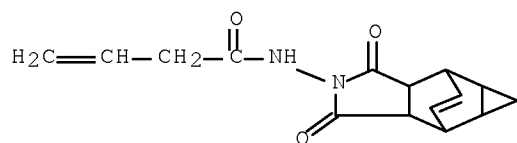
RN 816458-51-2 CAPLUS

CN Acetamide, N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



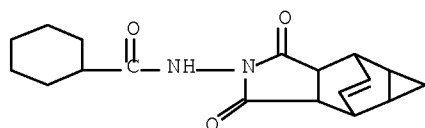
RN 816458-52-3 CAPLUS

CN 3-Butenamide, N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



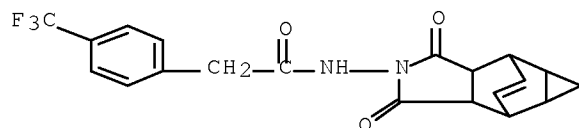
RN 816458-53-4 CAPLUS

CN Cyclohexanecarboxamide, N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



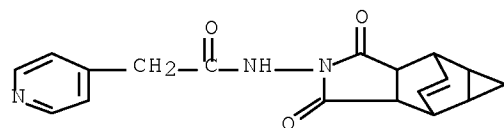
RN 816458-54-5 CAPLUS

CN Benzeneacetamide, N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)-4-(trifluoromethyl)- (CA INDEX NAME)



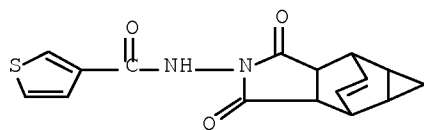
RN 816458-55-6 CAPLUS

CN 4-Pyridineacetamide, N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



RN 816458-56-7 CAPLUS

CN 3-Thiophenecarboxamide, N-(3,3a,4,4a,5,5a,6,6a-octahydro-1,3-dioxo-4,6-ethenocycloprop[f]isoindol-2(1H)-yl)- (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 39 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2004:1141796 CAPLUS Full-text

DOCUMENT NUMBER: 142:219077

TITLE: Synthesis and Antiviral Activity of Helioxanthin Analogues

AUTHOR(S): Yeo, Hosup; Li, Ying; Fu, Lei; Zhu, Ju-Liang; Gullen, Elizabeth A.; Dutschman, Ginger E.; Lee, Yashang; Chung, Raymond; Huang, Eng-Shang; Austin, David J.; Cheng, Yung-Chi

CORPORATE SOURCE: Department of Pharmacology, Yale University School of Medicine and Department of Chemistry, Yale University, New Haven, CT, 06520, USA

SOURCE: Journal of Medicinal Chemistry (2005), 48(2), 534-546
CODEN: JMCMAR; ISSN: 0022-2623

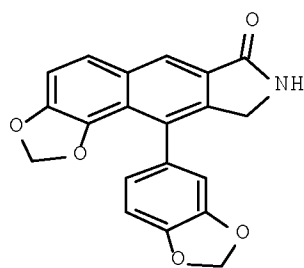
PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

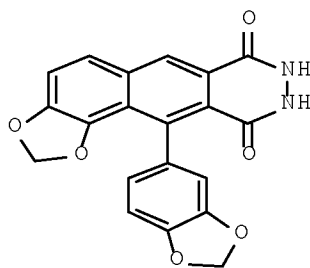
LANGUAGE: English

OTHER SOURCE(S): CASREACT 142:219077

GI



I



II

AB A series of natural product analogs based on helioxanthin, with particular attention to modification of the lactone ring and methylenedioxy group, were synthesized and evaluated for their antiviral activities. Among them, lactam derivative I and helioxanthin cyclic hydrazide II exhibited significant in vitro antiviral activity against hepatitis B virus ($EC_{50} = 0.08$ and $0.03 \mu M$, resp.). Compound I showed the most potent antiviral activity against hepatitis C virus (55% inhibition at $1.0 \mu M$). An acid-hydrolyzed product of helioxanthin cyclic imide derivative was found to exhibit broad-spectrum antiviral activity against hepatitis B virus ($EC_{50} = 0.8 \mu M$), herpes simplex virus type 1 ($EC_{50} = 0.15 \mu M$) and type 2 ($EC_{50} < 0.1 \mu M$), Epstein-Barr virus ($EC_{50} = 9.0 \mu M$), and cytomegalovirus ($EC_{50} = 0.45 \mu M$). Helioxanthin lactam

derivative I also showed marked inhibition of herpes simplex virus type 1 (EC50 = 0.29 μ M) and type 2 (EC50 = 0.16 μ M). The cyclic hydrazide derivative of helioxanthin II and its brominated product exhibited moderately potent activities against human immunodeficiency virus (EC50 = 2.7 and 2.5 μ M, resp.). Collectively, these mols. represent a novel set of antiviral compds. with unique structural features.

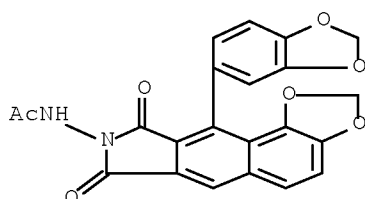
IT 840529-10-4P

RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent)

(synthesis and antiviral activity of helioxanthin analogs)

RN 840529-10-4 CAPLUS

CN Acetamide, N-[10-(1,3-benzodioxol-5-yl)-7,9-dihydro-7,9-dioxo-8H-1,3-dioxolo[3,4]benz[1,2-f]isoindol-8-yl]- (CA INDEX NAME)



OS.CITING REF COUNT: 15 THERE ARE 15 CAPLUS RECORDS THAT CITE THIS RECORD (15 CITINGS)
 REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 40 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1999:172499 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 130:305997

TITLE: In vivo metabolism of a new anticancer agent, 6-N-formylamino-12,13-dihydro-1,11-dihydroxy-13-(β -D-glucopyranosil) 5H-indolo [2,3-A]pyrrolo [3,4-C]carbazole-5, 7(6H)-dione (NB-506) in rats and dogs: pharmacokinetics, isolation, identification, and quantification of metabolites

AUTHOR(S): Takenaga, N.; Ishii, M.; Nakajima, S.; Hasegawa, T.; Iwasa, R.; Ishizaki, H.; Kamei, T.

CORPORATE SOURCE: Drug Metabolism, Development Research Laboratories, Banyu Pharmaceutical Co., Ltd., Saitama, 360-0214, Japan

SOURCE: Drug Metabolism and Disposition (1999), 27(2), 205-212
 CODEN: DMDSAI; ISSN: 0090-9556

PUBLISHER: American Society for Pharmacology and Experimental Therapeutics

DOCUMENT TYPE: Journal

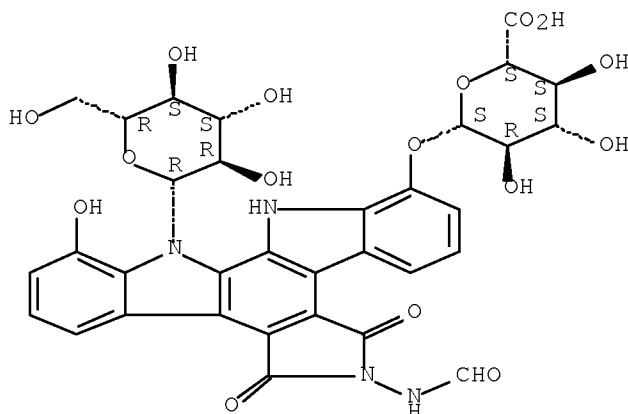
LANGUAGE: English

AB 6-N-formylamino-12,13-dihydro-1,11-dihydroxy-13-(β -D-glucopyranosil)5H-indolo [2,3-a]pyrrolo [3,4-c]carbazole-5,7(6H)-dione (NB-506), a potent inhibitor of DNA topoisomerase I, is currently under development for the treatment of cancer. We investigated the pharmacokinetics of NB-506 after i.v. administration in rats and dogs. The plasma concentration of NB-506 decreased biexponentially in rats and dogs with terminal half-lives of approx. 2 h. The

area under the curve increased nonlinearly with increasing dose in rats. In contrast, there was a linear relationship between the area under the curve and the dose in dogs. In rats, the plasma clearance decreased with increasing dose up to 187.5 mg/m² but remained virtually unchanged at the highest dose. The V_{dss} of NB-506 in rats and dogs was much greater than the plasma volume, indicating that NB-506 is highly distributed to tissue from plasma in these animals. There were marked species differences in the plasma concns. of ED-501 after i.v. administration of NB-506 to rats and dogs. To better understand the mechanisms of nonlinear pharmacokinetics in rats, in vivo metabolites were determined. After i.v. administration of [¹⁴C]NB-506 to rats, two unknown metabolites (RBM-1 and RBM-2), deformyl metabolite (ED-501), and unchanged drug (NB-506) were identified. Mass and NMR spectra anal. revealed that RBM-1 is an 11-O-glucuronide of NB-506 (ED-594) and that RBM-2 is an 11-O-glucuronide of ED-501 (ED-595). In this study, the pharmacokinetics of NB-506 was demonstrated to be nonlinear in rats, probably because of saturation of the enzyme systems catalyzing the deformylation and glucuronidation of NB-506 in rats.

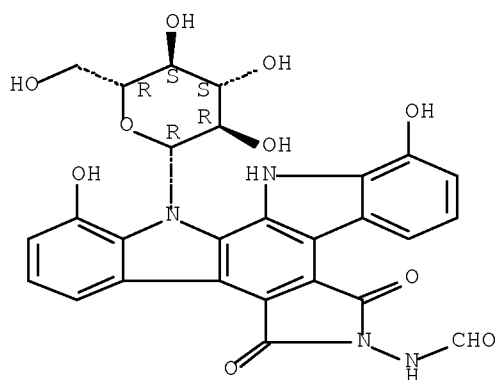
IT 217187-87-6, ED 594
 RL: BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)
 (in vivo metabolism of a new anticancer agent NB-506 in rats and dogs)
 RN 217187-87-6 CAPLUS
 CN β -D-Glucopyranosiduronic acid,
 6-(formylamino)-12- β -D-glucopyranosyl-6,7,12,13-tetrahydro-11-hydroxy-5,7-dioxo-5H-indolo[2,3-a]pyrrolo[3,4-c]carbazol-1-yl (CA INDEX NAME)

Absolute stereochemistry.



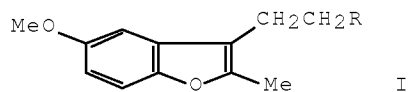
IT 151069-12-4, NB-506
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (in vivo metabolism of a new anticancer agent NB-506 in rats and dogs)
 RN 151069-12-4 CAPLUS
 CN Formamide, N-(12- β -D-glucopyranosyl-5,7,12,13-tetrahydro-1,11-dihydroxy-5,7-dioxo-6H-indolo[2,3-a]pyrrolo[3,4-c]carbazol-6-yl)- (CA INDEX NAME)

Absolute stereochemistry.

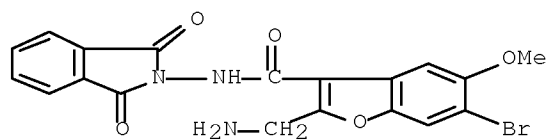


OS.CITING REF COUNT: 10 THERE ARE 10 CAPLUS RECORDS THAT CITE THIS
RECORD (11 CITINGS)
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 41 OF 41 CAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1989:614340 CAPLUS Full-text
DOCUMENT NUMBER: 111:214340
ORIGINAL REFERENCE NO.: 111:35545a,35548a
TITLE: Synthesis and antiviral activity of
5-methoxybenzofuran derivatives
AUTHOR(S): Zotova, S. A.; Nikolaeva, I. S.; Il'ina, M. G.;
Fomina, A. N.
CORPORATE SOURCE: VNIKhFI, Moscow, USSR
SOURCE: Khimiko-Farmatsevticheskii Zhurnal (1989), 23(2),
191-5
CODEN: KHFZAN; ISSN: 0023-1134
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 111:214340
GI



AB The title compds. I (R = CO₂Et, CONHNH₂, CONHCH₂CH₂OH, CONEt₂, CONH₂,
CH₂NHCH₂CH₂OH, CH₂NEt₂, CH₂NH₂ and others) were prepared as potential
virucides. I (R = CONH₂, CH₂NH₂, NHCO₂Et) inhibit replicating virus VEL in
cultures at 5.0 and 2.5 µg/mL.
IT 123647-75-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 123647-75-6 CAPLUS
CN 3-Benzofurancarboxamide, 2-(aminomethyl)-6-bromo-N-(1,3-dihydro-1,3-dioxo-
2H-isoindol-2-yl)-5-methoxy-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
(1 CITINGS)

=> log off

ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y

STN INTERNATIONAL LOGOFF AT 12:26:32 ON 03 MAR 2010